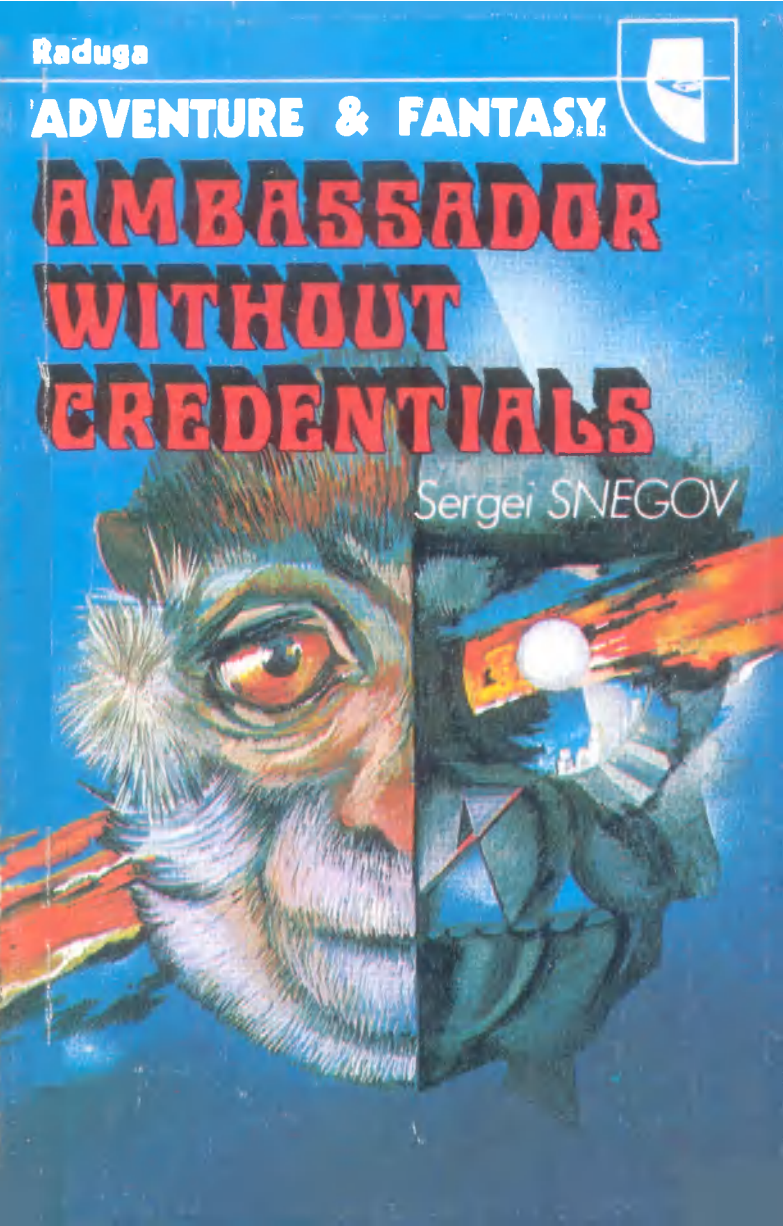
Raduga

ADVENTURE & FANTASY

# AMBASSADOR WITHOUT CREDENTIALS

Sergei SNEGOV



Adventure & Fantasy

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# AMBASSADOR WITHOUT CREDENTIALS

Translated by *Alex Miller*

RADUGA
PUBLISHERS
MOSCOW

Translation from the Russian
Designed by *Inna Borisova*

English translation © Raduga Publishers 1989. Illustrated

*Printed in the Union of Soviet Socialist Republics*

ISBN 5–05–002490–0

## CONTENTS


7 An Arrow in the Dark
42 The Dead Live On
79 Towards the Problem of the Average
112 The Happiness Machine
142 Professor Branting's Experiment
185 The Man Who Walked Through Walls
223 Genius Thrust upon Him
254 Supercentre of Immortality
279 A Heavy Drop of Vanity
300 Born Under an Unlucky Star
316 The Fire Within
345 Ambassador Without Credentials

# AN ARROW IN THE DARK

## 1

"Only you can solve the riddle!" The President of the Academy of Sciences transferred his gaze from Henry to Roy. Henry shrugged his shoulders, Roy looked intently at Boyachek's lips as if fascinated by the way they moved.

"We're all mourning Redlikh's death," continued Boyachek with emotion. "I myself particularly. He was my friend. The hand of an unknown criminal..."

"You still think Redlikh was the victim of a crime?" asked Roy with restraint. "But Altona's an abandoned planet and no one knows where its former inhabitants are now. And that Redlikh named Arkady Zamoisky before he died is inconclusive, since the members of the expedition have cast-iron alibis."

"Their alibis were established by the professional detectives who investigated Altona," objected the President, "and they came to the conclusion that no crime had been committed. But Redlikh is dead, and that's a fact. We want scientists sent to Constellation Lyra, *not sleuths*. After all, *you* discovered the secret of Fermat's great theorem, so you won't find the mystery of Redlikh's death such a hard nut to crack."

Henry was always pleased when they remembered that brilliant success of his and Roy's. But in case the President should think him vain, Henry commented with irony:

"Two space detectives who specialise in disclosing the sinister secrets of time and space."

"Two scientists," said Boyachek dryly. He was clearly not going to accept any reservations. Roy, who had sized up the situation before Henry, didn't argue any further. "Two explorers," continued Boyachek, "freely getting their bearings in the problems of space and history. In this folder you will read the report of the investigating commission that returned from Altona. The starship for Constellation Lyra leaves tomorrow at midnight. You haven't been in the vicinity of Vega before, apparently. I'm sure you'll like it."

## 2

Henry irritably threw the investigating commission's report on to the table. The

Space Directorate's detectives were so circumstantial as to be unreadable. Henry grimaced wryly and touched his head with both hands.

"It hasn't swollen," Roy reassured him. "By the way, I've read the whole report carefully myself, and I'm still alive as you see."

They were sitting in the lounge of a cargo starship. Lyra was gradually filling the whole of the observation screen. Blue-and-white Vega glittered so blindingly that it was hard to look at it without dark glasses. Altona, the seventh planet in the Vega system, could only be observed through optical multipliers, but the two first and biggest planets were already shining on the screen. On the rear screen, the distant Sun was being eclipsed by the spreading mist of material plasma ejected by the ship's annihilators to replace the space destroyed. Roy and Henry were the only passengers, and the captain had put the almost empty lounge at their disposal: it was more comfortable for work than a cramped cabin.

"I can see you're still alive. But are you normal?"

"You'll be convinced of that yourself in a moment. I don't go for the ancient methods of writing letters on paper, but those investigators have traditions of their own that must be allowed for. We'll transfer what matters on to tape so that we don't have to refer back to the report."

And Roy began recapitulating the content

of the report in his own words. Henry was bored at first, but then became interested. You couldn't deny that about Roy—however tangled the problem, he unfailingly went straight to the heart of the matter. Henry often flew off the handle when his brother got at him, shouting in the heat of the moment that Roy was a machine with no idea of inspiration. But whenever a joint investigation was nearing its end, Henry would let Roy publish the results because his brother's report had come out better.

Henry studied his brother as he listened. Roy's main quality was imperturbability. Whatever he was talking about, whatever his feelings might be, Roy's face never changed. Fair-haired, with a massive head, a big nose and full lips, he dictated the well-chosen words slowly, almost unfeelingly. And Henry noted with respect that, while cutting down the long-winded report to about a fifth of its former length, Roy did not miss out anything important.

"We'll use this summary." Roy pushed the dictaphone over to Henry. "The report can be kept for reference."

Henry started the recorder. In the resulting account, shorn of detail, the tragedy on Altona gradually became clear. Clear in all its mystery, thought Henry. This was a very unusual assignment that they had been landed with.

Altona, Vega's seventh planet, had once been inhabited by rational beings, said the apparatus. The external appearance of the

Altonians, their cultural level and where they had gone was a mystery. When Carpenter and Sidorov touched down on the planet, they found waterless and lifeless deserts, the ruins of cities and inexplicable metal installations. The inhabitants had abandoned the planet at least a million terrestrial years previously, but even by that time it had been totally lifeless in the earthly sense—neither flora, nor fauna, nor micro-organisms... Carpenter suggested that the rational civilisation on Altona had been not biological, but of some other nature. He pointed out that in the ruins of the cities, which did not look man-made at all, no food-preparing factories, or domestic utensils had been found. "The Altonians didn't know what food was," concluded Carpenter. They had not even left behind them libraries, microfiche records, pictures, statuary, or any other evidence of spiritual activity. And yet the baffling metal installations, beautifully preserved in the total lack of atmosphere on the planet, like the ruins of the cities, testified to the rationality of the vanished inhabitants. Carpenter's deputy, Vasily Sidorov, did not agree with his conclusions. The controversy had remained unresolved ever since.

A second expedition, led by the same Vasily Sidorov, was now at work on Altona. It consisted of scientific staff-members: Anna Parker, Arkady Zamoisky, Henri Charlus and Fred Redlikh. A year ago, by the terrestrial calendar, Redlikh had gone outside dressed for a long walk. Contact with him was

maintained by radio. Remote-control instruments recorded his parameters—breathing, temperature, reserves of bioenergy, brain and heart potentials. Twenty minutes later, all the data being recorded suddenly changed. At that moment, Redlikh shouted into the microphone, "Arkady, what are you doing?" The shout ended in a scream: "Zamoisky's killing me! Zamoisky's killing..."

All the other members of the team, including Zamoisky himself, were at the control panel. Sidorov gave the order to go outside. Zamoisky and Parker ran ahead. Redlikh was lying on the ground within two kilometres of the station. He was already dead—his space suit had been punctured by a sharp instrument... There was no one near the body and no footprints were found in the vicinity, which was natural, for the planet was uninhabited and all the members of the team, apart from Redlikh himself, had been at the station.

The investigating commission considered that the damage to the space suit which had resulted in Redlikh's death could have been caused by accidentally bumping into a sharp rock or by a meteorite, and the scientist's scream before he died resulted from the feverish hallucination of a fading brain. Meteoric debris was found in the vicinity of the fatality, but it dated back to an earlier time. The commission was unable to find any sharp crags, a fall on to which could have caused such fatal damage to the tough fabric of the space suit, and the indisputable alibi of

all the expedition's members proved that no crime had been committed.

"An honest conclusion," commented Henry. 'They sought, but they did not find, and that left their minds at rest. They didn't even hit on the trail, as they used to say in the old days."

The minor planets of Vega began glimmering dully on the screen, and the weakest was the point that indicated Altona. When Roy was thinking hard, his eyes lost their bright blue. They were now watery and dull.

"The Space Directorate's detectives," he began slowly, "investigated the incident according to the standards of terrestrial life. And that's where they blundered. Terrestrial standards of conduct can prove unacceptable under the conditions of other planets and other civilisations. They were looking for the most likely terrestrial explanation for the disaster, but the event took place on Altona."

"Am I to understand that you suggest looking for the most unlikely explanation?"

"If the likely one is fruitless, let's look for the unlikely one, because there's no other one left."

"The most unlikely one is that Redlikh was not killed and it wasn't his body at all that was brought back to Earth."

Roy ignored the jeer. When reflecting, he did not get excited, like Henry, but became more restrained.

"The most unlikely thing is that Redlikh was right and he was murdered by Arkady,

who at the moment of the killing was in totally different place, surrounded by his colleagues. I suggest this hypothesis as a jumping-off point. Now for your objections."

"Objections against what? Normal duplication of the individuality! One hypostasis of Zamoisky peacefully works at the control panel, the other rampages round the rocky plateaux of Altona." Henry laughed. "There's something in that idea, Roy. If we accept your version, all we have to do is find out how such a duplication of the individual is physically possible. It narrows our range of search considerably."

"Widens it considerably, more likely," answered Roy thoughtfully.

## 3

"No," said Sidorov, "we haven't found out the cause of Fred Redlikh's death. It's a mystery, as before."

"I'm talking about meteorites, an oxygen cylinder blowout..." explained Roy.

"And about a great deal else in the same wise," concluded the chief of the expedition dryly. "I repeat—no! Danger factors do not exist on Altona. And if they did appear, they would immediately be registered by our instruments."

"They even record cosmic dust," explained Arkady Zamoisky, the station's power engineer. "Not even a tiny meteorite would get by undetected."

Sidorov, a dry little old man with faded eyes under thick, bristling brows, was aggressive in his bearing, answered abruptly and kept passing acid remarks; the appearance of another investigating commission was, for him, tantamount to a personal insult. He did not believe that people from Earth would be able to solve a riddle that he and his assistants had failed to crack. Zamoisky, a handsome young man with an intelligent face and nervous, slender hands, kept glancing uneasily at Roy and Henry by turns, and his voice alternated between relaxation and tension, with a note of embarrassment from time to time. Henri Charlus, the fat, asthmatic astronomer and physicist, was not shy of showing that he was bored to death with being asked questions: he all but yawned as he answered. But the most wary of all was Anna Parker, the historian. She was not beautiful, but there was something immediately striking about her. "A man could fall in love with that one," thought Henry, watching with interest as she flushed and went pale by turns. Her ability to keep her hot temper in check reminded him of his fiancée Albina, who had died five years back.

"There's no such thing as death without cause," said Roy bleakly in objection to Zamoisky. "If external accidents are ruled out, there's only one thing left: Redlikh wasn't lying and you were the murderer."

Zamoisky threw his hands apart. He still couldn't hide the tremor in his voice.

"Logical. But then explain how I could have killed Fred if I was here and he was two kilometres away from me."

"So one riddle is explained by creating a second one that is no less of a mystery." Sidorov shrugged his shoulders irritably. "We discussed that hypothesis too amongst ourselves: Arkady as murderer. He himself asked us to analyse it."

"What was your conclusion?"

"The same as yours will be soon: nonsense! Incidentally, Fred saved Arkady's life a month before his death. People don't murder their rescuers."

"Even so, I'm tabling the hypothesis for discussion," said Roy. "And please don't treat it as an insult, but as a point of departure whose probability must be assessed. Let's approach the problem of Redlikh's death as a scientific and not a criminological teaser."

Charlus yawned again and looked dismally at the wall. The discussion was taking place in the lounge, where instruments and an observation screen had been installed.

"I'm going out on to the planet in an hour, please question me first..."

"This isn't going to be an interrogation. We shall be holding a joint discussion. We shall start with the point that in every crime it is necessary to distinguish the motives and how it was committed. There are grounds for a murder, to some extent, if the murderer has disliked the victim. Foes are killed, not friends."

"Were killed," corrected Anna quickly. "That ancient method of settling accounts..."

"We shall investigate the possibility of a recurrence of the ancient phenomenon and we shall describe it in the ancient terms. So, Arkady, were you on hostile terms with Fred?"

"I felt no particular liking for him... In any case, until he risked his own life to rescue me from disaster."

"Did you have rows with him?"

"Generally speaking, no."

"What does 'generally speaking' mean? How about in particular?"

"In particular, we quarrelled once."

"Give us more details."

"I wouldn't care to go into the details."

"It's important for an analysis of the incident."

"It's a strictly personal matter. And it concerns a third party..."

"The third party is me!" intervened Anna. "And I can fill you in with the details that Arkady finds embarrassing to mention. Fred took it into his head to start pestering me. I warned him that I would only allow comradely relations. But he was persistent, to put it mildly..."

"Was he too forward?"

"Yes. One evening, he was particularly importunate... We were alone in this lounge..."

"You find it hard to tell us about it?"

"No, why should I? I'll tell you. I called Arkady to help me. He ran in and shouted at Fred. Arkady often says too much when he's

in a rage... But Fred listened and laughed. It always drove me frantic, that laugh: he laughed as if he was slapping your face... Then Fred said, 'The knight comes to rescue his lady-love. That's natural. But a knight must have two qualities...' Anyway, what he said next isn't important. I've explained that Fred was sometimes unceremonious."

"Anna doesn't want to offend me," said Arkady. He had turned pale, but he spoke calmly. 'Those two qualities,' said Fred, 'are fearlessness and physical strength.' After that he pushed me out of the lounge and warned me that if I came in again he would wipe the floor with me. That's how he put it, 'wipe the floor'... I must explain that Fred was very strong and he was uncontrollable in a rage. I stood outside the lounge and Anna didn't call again... Soon Fred came out and snapped, 'Eavesdropping? A most chivalrous occupation!' "

"You had no more tiffs with Fred?" said Roy to Anna after a brief pause.

"We met every day. He behaved as if nothing had happened."

"What did you do after the quarrel?" said Roy, turning to Arkady.

"I went back to the power station where the generators were being checked."

"Did you start work?"

"I couldn't. I gave the generators a low power programme and thought about Fred. On the next day, everything was as usual, outwardly. We talked to one another in front of people and even cracked jokes."

"And there were no more quarrels?"

"None."

"And he never apologised to you for his rudeness?"

"Of course not."

"And you never asked to be forgiven for the harsh words in the lounge?"

"Needless to say, no."

"Tell us how Fred saved you."

"We went outside together. I fell into a deep fissure and a mass of earth came down on top of me. Fred ran down and although there were rocks all round that could have fallen on him, he got hold of me and dragged me up. When I came to, he was lying beside me and could hardly breathe for exhaustion. One of the boulders had hit him on the shoulder and he went around with it bandaged for two weeks."

Roy wound up his questions. Sidorov invited the guests to inspect the planet, beginning with a general survey on the screen. Charlus went away, followed by Anna and Arkady. The lounge light went out and the observation screen lit up.

## 4

At first there were only stars, the distant Sun amongst them, a point of light almost invisible to the naked eye. Vega had set. In the darkness, Altona stood out as a dark blob, a lifeless globe of rock in space... The screen was growing brighter, and Altona was

swelling beyond the edges of the screen. Sidorov said that the stereo-images of the planet were obtained from artificial satellites released over Altona.

"Most of them are moving. But we have suspended stationary sensors over certain places. The idea is to record any changes that might occur in the objects. I shall now show you the nearest of the cities on the planet. Generally speaking, they're all identical."

Heaps of gloomy rocks that appeared on the screen had preserved only the semblance of shapes—half-obliterated parallelepipeds, half-collapsed pyramids, something reminiscent of spheres... There was no atmosphere on the planet; objects had preserved their original angularity, the eternal freshness of the fractures. The widespread number of ruins could testify to an unknown disaster that had occurred or to unexplained corrosive action. Roy wondered if Sidorov regarded these mounds as cities because he was guessing at their once geometrically correct shapes. The head of the expedition objected that every city was the abode of living beings, but within the strange rocks there were empty spaces of such perfect proportions that they could only be called living-quarters.

"Have you found any furniture there or domestic objects?"

"I said empty spaces!" replied Sidorov with a frown. "That means that apart from those empty spaces, nothing was found there. No traces of artefacts. As for an atmosphere, if

Altona ever had one, it must have been dissipated into space millions of years ago."

"And after that, you claim that Altona was inhabited by living and, what's more, rational beings?"

"Yes, I do. And that's the basis of the disagreement between Carpenter and myself. Carpenter was the greatest of the stellar explorers, it was his calling to put planets on the map. The Columbus of the space worlds, that's what he was. But he was not interested in such trivial things as living beings. If he happened to find life on a planet, he conscientiously made a note of it and that was all. Believe me, I worked for ten years as his deputy. But he wasn't a thinker, unfortunately."

"I still don't see any proof..."

"Wait. I haven't finished with Carpenter. He recognised as life only those forms that were distributed in the vicinity of the Sun, and as for thinking, he only accepted what was similar to our own. But I admit the possibility of life-forms in no way analogous to our own and a faculty of reason distinct from the human."

"You're not answering my..."

Whenever the chief of the expedition was irritated, his eyes could no longer be called colourless. And he got irritated at the least disagreement with him.

"I said wait! What I have called the cities on Altona show obvious signs of artifice. Even the blurred outlines... These cities are unusual for the local landscape, but life, as

it happens, creates the unusual everywhere. Look at those installations yourself, and if you don't recognise them as artificial, then you must be blind."

There now loomed up on the screen installations resembling the ancient machines that used to fill the museums on Earth. And there were many of them; it was a gigantic cemetery of machines set out in an order of their own, a dead factory abandoned by its creators.

"Metal alloy," replied Sidorov when Roy asked him what they were made of. "Nickel and another eighteen elements. That's more proof for you of artificiality: Altona is rock, the machines are metal. And the constituents of the alloy don't vary by so much as a millionth of a per cent. Metallurgy on Earth has never yet even dreamed of such precision."

"I can see what looks to me like receiving aerials," said Henry, peering at the screen. "And a radar aerial not far away."

The chief of the expedition laughed.

"When you wander about among those installations, you'll find wheels, levers, capacitors, resistors, power lines, thousands more parts you know and tens of thousands you don't. We don't understand what they were for, and dead machinery can't demonstrate itself working. All we can do is conscientiously photograph everything, describe it and send the results to Earth for study..."

"One can construct hypotheses," said Henry pensively. "Let's grant that the machin-

ery was built by rational beings who have since vanished. What use could they have been on a planet without air or water?"

"In some way, it obviously helped the Altonians to function."

Sidorov switched off the screen. Roy asked what the personal relationships in the team were like. Sidorov considered them normal. When five people see one another every day, they become heartily fed up with one another. But the row between Fred and Arkady had been the only one during all the years the expedition had been exploring Altona. Furthermore, each member represented a specialised branch of science, so rivalry was out of the question. And, naturally, each was talented in that particular field; ungifted people would not have been sent on such an expedition.

## 5

When Henry looked through the photographs of Redlikh, he said that had he been a woman, he would have fallen for a man like that. Redlikh was handsome in an unusual way: kindly eyes twinkled in the somewhat lean, vigorous, almost grim face. In Redlikh, courage was combined with a childlike naivety.

Roy was dictating a summary of the facts and a series of propositions into the dictaphone. Before this, the brothers had visited many cities and the sole factory. The incompre-

hensible machines seemed brand-new, although they had undoubtedly been made millions of years ago. The cities, on the contrary, seemed half in ruins, if they had ever been cities at all.

"Tell me something," requested Roy when he had finished dictating. "The biggest riddle on Altona just now is you. You never said a word all through the discussion. Dazzle me with a new idea. I'm dying for some absurdities."

"There's an absurdity in your summary of events," responded Henry. "And it contains the answer to the riddle."

"Meaning what, precisely?"

"Arkady could have wished disaster on Fred immediately after the quarrel—a mind clouded by rage, a sense of humiliation... But he did Fred no harm at the time. Then Fred saved his life, and hostile acts against one's rescuer are unthinkable; I agree with Sidorov on that point. But Redlikh is killed when their relationship is on the mend. There's a paradox here, and I'm racking my brains over it."

"But what if Arkady's the kind of chap whose sense of injury only worsened after his rival demonstrated his superiority by saving his life?"

"Nonsense, Roy. Look at Arkady—he's a charming boy, hypochondriac, hot-tempered, touchy and sincere. And Anna's right, we doesn't live in the ancient times when people settled their scores with a vendetta."

"Have you another version of Redlikh's death?"

"No. That's why I'm working on yours; I'm taking the incredible as a starting-point. You said the motive and means of a crime must be distinguished. The means is a riddle. But if Arkady really is the murderer, the motives are no less of a riddle. Why did he kill Fred at a time when he was feeling grateful to him and their friendship was on the mend? Fred went out on to the planet every day, and what was done three months after the quarrel could have been done any day earlier. If the murder had been committed before Arkady was rescued, the motives for the crime would have been natural."

"Clearly, there must be reasons why Redlikh wasn't killed earlier."

"Precisely. In other words, a new riddle appears: that of the late settling of scores with Redlikh."

"And it works out as Sidorov put it: one riddle is solved by the creation of another."

"Two more, even," commented Henry calmly. "I mean that Arkady was the murderer, but that was physically impossible. And that he settled accounts with Fred just when he couldn't wish him any harm because he owed his life to his colleague."

There was a knock on the door. Anna walked in. Roy stood up and offered her a seat. She sat down, resting her hands on her knees. Her pale face and irregular breathing showed that she was upset. During the gener-

al discussion in the lounge, she had been much more composed. She was looking only at Roy. He waited politely.

"I haven't disturbed you, have I? You probably..."

She was so flustered that Roy came to her rescue.

"You wish to tell us something important, friend Anna?"

She gained control over her voice, but spoke more slowly than in the lounge.

"I don't know whether it's important or not. It is to me, of course. I never told you about my attitude to Fred... I didn't want to talk about my feelings in front of everybody."

She fell silent again, nervously clenching her fists. Roy waited a moment before speaking himself.

"My brother and I seem to guess right. You were in love with Redlikh?"

She nodded without speaking.

"But Arkady was in love with you? And he was jealous of Fred?"

"He felt sorry for me," she said dully.

Roy and Henry exchanged glances. Henry watched Anna without intervening in the conversation. Roy began questioning her. He hadn't been intending to probe her mind; it was his professional job to investigate actions, not feelings, but in the baffling occurrence on Altona, actions had probably been dictated by feelings...

"I don't want to hide anything," interrupted Anna. "That's why I came here. The fact

is that I was Arkady's fiancée ever before I was sent to Altona."

She was now talking more freely. There had been a kind of barrier between her and confession, but she had overcome it. She described how she had first met Arkady a month before lift-off for Altona, how she had taken a liking to him and he to her, how they had hesitated whether to announce their decision to get married and to turn down a highly interesting assignment, since married couples are not accepted for the distant planets, or to refrain from intimacy for three years until they had returned from Altona. Arkady had urged her to stay on Earth and the decision to fly had come from her. They had promised each other not to overstep the bounds of friendship on Altona. No one could have reproached them with breaking the regulations laid down for long-distant expeditions.

Fred Redlikh had come for the second year to replace the fifth member of the team who had fallen ill...

Anna's voice became dull again, she clenched her fists nervously once more. Her face flushed and went pale by turns. Fred Redlikh had been a difficult man to get on with. He had the reputation of being a brilliant explorer of extraterrestrial civilisations, a thoughtful and brave man; moreover, he was handsome and strong. He had been spoiled on Earth, to put it plainly. He looked on easy conquests of women as natural. When he arrived on Altona, he let it be understood

that he wasn't going to respect all the expedition's taboos by any means. Simple friendly relations with Anna were not enough for him. It is even hard to describe his conduct as a courtship—assault would be a better word. She once threatened to complain to Sidorov. Fred roared with laughter in a nasty sort of way. "You think that's going to stop me, Anna?" She did not reply and went out. He overtook her in the corridor, seized her forcibly by the hand and whispered, "Go to Sidorov, I entreat you. But you've got to know how much more important you are to me than all the Sidorovs on Altona or anywhere else!" Anna could not sleep that night. She realised that things were heading for disaster.

"Which means," said Roy gently, "that he had fallen seriously in love with you, doesn't it, if he behaved like that?"

She shook her head.

"He wasn't in love, he was infatuated. Fred was incapable of serious feelings, he just got carried away. His real love was archaeology. He gave more passion and time to the stone goddesses found on Zea-2 than to all his amours taken together. The artefacts he discovered dating back to ancient civilisations were never out of his mind; he could talk enthusiastically about them for hours. But the women in his life came and went; he was often unable to remember the name of one he had been in love with once, he looked at photographs of his girl friends and muddled up their names. The love that

overwhelmed him at times was headlong, tempestuous and persistent, but offensive. It was torture to him, he found it hard to resist and there was no joy in it."

"This was all before your time," said Henry suddenly. "Don't you allow for the possibility that Fred had changed when he met you? That his feelings for you may have been the first serious ones in his life?"

Anna turned to Henry and looked intently at him for a long time as if unable to understand the question. She was hesitating. Henry knew the answer to his question and did not doubt that she knew it too. He wanted to determine how sincere she was in her answers and whether she was being completely honest with herself. When she began speaking, Henry was satisfied and signalled with a glance at Roy that he would not be intervening any more in his brother's conversation with Anna. She said what he had been expecting.

"Look at me," she requested bitterly. "Do I look like the beautiful women whose heads he used to turn? I'm an ugly little thing compared with them. He had an album—friends, colleagues on earlier expeditions, lovers... He was always ready to show them to us, and I was able to imagine my place in the collection. It wasn't just a matter of externals. I was losing out spiritually too. He moved amongst brilliant people, men and women. I realised at once that in five years, when he was pointing to my photograph, if it had a place in his album, he would say, 'And this one here is Tanya... No, Maria,

I think... We spent two marvellous years on Altona. I simply can't understand why I cooled off towards her so quickly!' "

She took a deep breath to quell her mounting agitation.

"I'll go back to that evening... Now, when Fred said that he would wait... Arkady ran into the lounge. I was sobbing with my head on the table. He went down on his knees and soothed me. I was out of my mind, I couldn't get a hold on myself. And I said too much. I confessed to Arkady that I was in love with Fred, and that Fred's love for me was horrifying and offensive to me, and that I hadn't the strength to defend myself, and that if he didn't stop pestering, I wouldn't be able to resist. 'He won't have long to wait, he won't have long,' I shouted through my tears. I can't forgive myself to this day for having hysterics... There was never a man in my life as kind-hearted and gentle as Arkady. He could have forgiven me all my misdemeanours and never said a word of reproach, that's the sort of person he was; but does that justify me tormenting him so much? I went on talking and talking until I suddenly glanced at him and was frightened at what I was doing. There was a terrible look on his face—no, not terrible, that's the wrong word, but it was sort of desperate and remote. I suddenly felt so scared that I started justifying myself, I started beseeching Arkady to forgive me. He stroked my hair and said very quietly, 'Anna, let's leave Altona. We'll hand in our notice and go. Otherwise there's

great grief in store for us!' I answered, 'Let's wait a while, Arkady. If nothing changes, we'll give our notice.' We talked a little while longer, and then Arkady went to the generator compartment and I returned to my room."

"So you didn't hand in your notice after all?" asked Roy.

"There was no need. From that evening until his death, Fred's behaviour was beyond reproach. It seemed to me that friendly relations were beginning. His fit of passion for me was short-lived."

"In any case, less permanent than yours for him," thought Henry, hearing the tremor of inner pain in her voice.

Anna rose to her feet.

"I don't know whether my admission will be of any help to you, but I feel easier at heart for it. Please don't tell Arkady I came to you. I love him sincerely, believe me. He would be badly hurt if he found out that I'd confessed to you about my attitude to Fred. But I don't want to upset him."

"Arkady won't find out about our conversation," Roy assured her as he saw her out.

When the door closed, Henry exclaimed excitedly, "Roy, send for Arkady at once. We must talk to him!"

"Must?" queried Roy doubtfully. "We've promised Anna..."

Henry gestured impatiently.

"All your promises will be kept! I'm the one who's going to talk to him this time. And it will only be about him and his behaviour, not about Anna's feelings."

Roy called Arkady, and the expedition's power engineer came in a minute later.

"Excuse us taking you away from your work again," began Henry. "We need to clarify one very important detail. Can you remember very precisely what you did when you returned to the generator compartment after the row with Fred?"

Arkady shrugged his shoulders. Nothing could have been easier than to remember what he had been doing then. He had been doing nothing. He had been sitting in front of the control panel so drained of strength that he could hardly lift his hand, staring blankly at the panel and reflecting about various things. Mentally, he was still attacking Fred, he even started a fight with him and floored him—in short, had settled the score with him. The dreams of revenge soon faded without a single being translated into action. Not because he was afraid of the outcome—any fight with Fred could end badly—no, it was simply that an injured imagination was one thing, but real action was another.

"I've had this urge to paint pictures ever since I was a child," confessed Arkady. "If my mother punished me, I imagined I'd died of grief and my mother was in paroxysms of remorse over my body. And if I quarrelled with a comrade, I revenged myself cruelly on him in my mind, and the picture of my imagined vengeance quickly calmed me down... Unfortunately, I still haven't shaken off this childish habit."

"So you were sitting at the control panel?" reminded Henry.

"The trials of the generators began just at that time. They were running at low power, as I've already mentioned. We were verifying a supposition that the incomprehensible factory was a power plant and we were trying out the effect of electric fields on it."

"How were the generators working three months later, on the day Fred died?"

"On that day we set them at maximum power. To watch the course of the experiment, we all assembled in the lounge, although we usually work in separate rooms. But powerful electric currents didn't make any of the mystery machines come to life."

"You say you all assembled in the lounge?.."

"Fred was with us too. But he got fed up with keeping watch at the instruments; he put on his space suit and went outside. Then came the cry for help and the scream that I was killing him... I was sitting at the screen at the time..."

"That's enough, thanks, Arkady," said Henry.

Arkady went out and Henry gleefully announced to Roy:

"As you're already guessing, I've been smitten by a brilliant idea. One of the kind you thirst after so much. And if it's confirmed, there won't be any more riddles. You told Anna that feelings dictated actions. If I'm right, then on this amazing planet, feelings are actions. But it will call for one dangerous experiment."

"Such experiments used to be called re-enactments," announced Roy with satisfaction when Henry had outlined his idea. "Rest assured, I'll do everything you require."

## 6

As Henry went out, he gave Roy a cheerful glance of encouragement. The generators were running reliably, there could be no accidents. Roy was nervous. At the last moment, he began asking Henry to stay behind in the lounge, but Henry rejected his solicitations; it was too late to change the programme of the experiment, if Roy went outside instead of Henry, it could increase the element of chance.

Anna stayed with Roy. She was watching in case the power of the generators should fall. Henry was accompanied by Sidorov, Zamoisky and Charlus. The brothers had explained to them that they hoped to animate the machines that day and it would be better to see them coming back to life in the darkness on the planet than on the screen.

The appeal in the eyes of Arkady Zamoisky and the zeal with which he readied the generators for work at full regime told more clearly than words how much hope he was staking on the success of the experiment.

An electrical storm was raging over Altona: the power emitted by the generators was charging the surface of the planet and build-

ing up on the rocky crags and surfaces. The four figures moving through the darkness were turned into human lightning conductors. "A pity there's no atmosphere here," thought Henry, peering into the blackness ahead where lay the cemetery of strange machines. "We'd have a real fairyland if these electrical Bacchanalia went on in the air as on Earth and ionised its molecules!"

Henry, who had been waiting impatiently for precisely what was about to happen, was the first to see another human figure in a space suit and with a lance in its hand approaching from the direction of the machines. But the stranger was moving faster than Henry had expected. It was not walking, but speeding along, almost flying.

"But that's Roy!" shouted Sidorov into the microphone in amazement. "How did he manage to beat us to it? He stayed behind in the lounge!"

"Weapons!" commanded Henry, and he snatched out his electric pistol.

Before he could shoot, the stranger thrust his lance ahead of him and charged at Henry. And if Henry had not known earlier what was going to happen, he would not have been able to dodge the headlong onslaught. Henry said afterwards that it was the sort of occasion when a second's delay can cost a man his life. The second surprise was that the stranger looked too much like Roy. It was virtually Roy himself who had dived out of the darkness—Henry hadn't the nerve to discharge his pistol.

However, the chief of the expedition fired, but missed. Charlus and Zamoisky fired simultaneously. The overexcited power engineer's discharge also flew past its target, but the cool physicist hit the stranger. He swayed but stayed on his feet and brandished his lance.

The rest happened in a matter of seconds. With the same precipitance with which he had attacked, the stranger took to his heels. The sinister phantom raced back to dead factory, quickly dissolving in the eternal darkness of the planet.

"After him!" shouted Sidorov and raced after the fugitive.

Henry overtook the chief and stopped him.

"Let go!" The chief of the station frantically tore himself free. "The criminal must be seized!"

"You won't seize anyone! There's no criminal. He only existed for a few minutes."

"Shielding your crafty brother? We could all see it was Roy!"

"Roy is sitting quietly with Anna and watching what's happening to us on the screen! Let's go back to the station and he'll tell you what the experiment was about."

## 7

Roy loved such moments—rapt eyes, cheeks flushed with excitement. Today he could not complain of an inattentive audience.

"It was clear to us from the start that the standards of the ancient criminology were

irrelevant," he said in the lounge. "The terrestrial detectives established that there had been no murder in the ordinary sense of the word, and they were right. But Redlikh was physically destroyed and therefore there had to be physical causes of his death. We were convinced that we had come up against a totally unprecedented phenomenon, and therefore we only sought explanations that themselves seemed incredible. The most incredible was, as you will agree, that the attack on Fred had been made by Arkady. This would have been tenable if we had been able to prove that the physical duplication of a person was possible on Altona,—the appearance of a kind of material double of Arkady, capable, even if only for a moment, of committing real acts."

"Are you suggesting that the machinery left behind on Altona by an unknown civilisation could physically reproduce any one of us it cared to?" queried Sidorov.

"It was Henry who had the idea. Human technology can create the image of any being and send that image over any distance. But our images are incorporeal, they are merely drawings, outlines on the screen and not bodies. A civilisation that had substantially overtaken ours might be able not only to create optical images, but to supply them with other material attributes such as corporeality, mobility and so on. A duplicate—a combination of drawing and sculpture, a physical image programmed to execute a certain action, in brief, a robot copy... How it

is created by the machines on Altona is something that I leave you as a problem for research. But we have shown with our experiment that this is the state of affairs: I had a desire to attack Henry with a spear, and that desire was fulfilled by the machines which created a physical copy of me. The chief difficulty, by the way, was to copy me physically, thereby proving that the mystery machines on Altona could work. There was another difficulty—the motives for the crime (I'm using this word provisionally since there is no more accurate one). And if it hadn't been for Anna's frankness in telling about the quarrel with Fred, and if it hadn't been for Arkady's frankness in admitting what had happened to him during those painful moments, we wouldn't have had a clue to the solution of the mystery."

"I never even had an inkling that my bitter dreams could have such appalling consequences," said Arkady, distraught.

"We're all used to thinking that when the imagination gets out of hand, it's of no consequence. It means less than a nasty word spoken in the heat of the moment. In our thoughts, we often allow ourselves what we would never say out loud, much less put into action. On Earth, such duality of imagination and action is harmless, but on Altona any dream immediately becomes action and if the dream is an evil one, action becomes destructive."

"You haven't explained how you solved the riddle of the machinery," said Charlus.

The fat physicist was less interested in moral than in engineering problems.

"The solution came naturally. When he was dreaming of revenge on Fred, Arkady was sitting by the energy field generators which had only just been started up. It was entirely possible to suppose that those force-fields, by somehow amplifying the biowaves of his brain, transmitted his dreams to the mechanisms on Altona in the form of input information. The machines picked up the signal and created a program to fulfill the dreams in the form of Arkady's duplicate, who attacked Fred in the darkness. There may well have been a picture of that kind among those passing through Arkady's excited brain. And if Redlikh was not killed immediately after the quarrel, it was simply because the mechanisms that materialise the imagination did not get enough energy from the station. The machines worked at full power for the first time on the day of the murder. We noted that highly significant circumstance also. It was testimony in Arkady's favour, for during those three months his annoyance with Fred had turned into gratitude for having been rescued. The dilatory murder was caused by the unexpectedly increased current of energy.

"An arrow flying in the dark, as the ancients put it!" Anna, who had turned pale, shrugged her shoulders. "Now I'm going to be scared of walking about the planet. And I'll suspect everyone of having bad thoughts about me!"

"No, Anna," said the chief of the expe-

dition excitedly. "We have no cause to fear the planet, any more than we'll have cause to fear ourselves. We shall know that on Altona we've got to control not only our actions and words, but our secret thoughts as well. We shall learn that, as a child learns that it is not allowed to do everything and it can't say any word it likes with impunity. And Earth, too, sending out new expeditions, will from now on choose people trained not only in a sense of external behaviour, but in the command of a well-disciplined imagination. This is not such a weighty problem. I am thinking about them, the baffling creators of these amazing machines. In unravelling the riddle, friends, you have opened up truly amazing prospects for us."

Sidorov was silent for a moment as he collected his thoughts.

"You have proved that the machines found on Altona need only an influx of energy from outside in order to operate. You have established that they are capable of materialising the vague thoughts that pass through our minds. We shall probably establish many other functions of which these machines are capable. But it is already clear today that the inhabitants of Altona used them to fulfill their mental desires. People on Earth invented machines manufacturing material products and robots that could serve man directly. How immeasurably further the inhabitants of Altona went! Armies of servants appearing when the need for them occurred and then disappearing without a trace! No repairs or

greasing! No currying favour from one's helpers, when human beings spend so much time on the maintenance of their machines... I cannot shake off the thought that the Altonian civilisation could teach us a great deal—not only about material culture, but about morality. When the machines start working fully, we shall have to keep a strict watch on ourselves in case a careless thought or sudden dangerous fantasy leads to another disaster. And that on condition that we stay locked up on the station, only very occasionally venturing outside. But the Altonians lived among their machines and were in direct communication with them! I would like to meet these amazing creatures—not so much to borrow their engineering achievements as to win their sincere trust, to become their friend. But for that we must solve another riddle: where have they disappeared to?"

"Discovering the secret of the machines throws light on the secret of their disappearance too," commented Arkagy. "The machines work only with an influx of energy from outside. There are no organic energy sources on Altona and the energy radiated from Vega is not enough. We must look for atomic plants on the planet. If there were fuel ores and if the resources ran out, the Altonians would have had to perish or move to other planets."

"We'll ask Earth to send special expeditions to find the Altonians," promised Roy.

The hitherto silent Henry joined in the conversation. He did not like public speeches

and, if there had been any need for them, would have left them to Roy.

"Now for what baffled me. Why did your phantom double clear off so smartly?"

"Oh, that!" said Roy. "Anna and I could see on the screen that you were late hitting back and were aiming badly out of excitement. Then I sent the machines a mental command for my double to get to hell out of it. They're first-class at their job, there can be no doubt of that."

## THE DEAD LIVE ON

### 1

Pyotr had lost the thread of the argument. Roy and Henry were always arguing. There wasn't a thing in this world about which the brothers saw eye to eye. If one said, "Yes", the other answered, "No". Even in appearance they were not just different, they were opposites. Roy was over seven feet tall, blue-eyed and fair-haired; he was so thoroughgoing that he answered comments with whole speeches. Henry, not much above six feet in height, dark and incommunicative, confined himself to brief remarks even at scientific conferences. Roy's long-windedness irritated Henry and he would laugh at his brother's efforts not to omit a single detail. They had

worked together on decoding the weak emissions of the human brain as they travelled through outer space. Even before Henry had finished his school studies—Roy had been seven years his senior—the brothers had begun collaborating and had never parted since. As soon as one of them became interested in something, that was enough to stimulate the other's enthusiasm. It would have been hard to find two closer friends.

"You don't want to listen!" said Henry reproachfully to Pyotr.

"...and that's why it's necessary to process a vast amount of factual material, locating thousands of subjects for research simultaneously," said Roy calmly as he followed up an elaborately thought-out line of argument.

"He might be talking to a brick wall!" continued Henry with annoyance. "A brick wall pays more attention than you, Pyotr."

"And on the basis of the subsequent evaluation and selection of the more favourable instances..."

"I'm lost," said Pyotr contritely.

"...taking into consideration, of course, the individual peculiarities of each subject, for distortion is unavoidable at distances of up to a hundred light-years, and apart from the characteristic common to all, they will be permeated through and through with their own unique peculiarities..." argued Roy.

"Your opinion?" demanded Henry.

"I haven't got one," said Pyotr. "I'm an observer, not a judge."

"...extract general rules of search and apply them to the decoding of other subjects which, in their turn..."

Henry jumped to his feet. "Extract your general rules," he said, "but I'll start like everyone else—with first principles."

Henry went out, banging the door. Roy stopped short in mid-sentence. Pyotr laughed. Roy looked at him reproachfully.

"Were you really hoping that everything would go smoothly right from the beginning?"

"It's over a week since the machines started operating," complained Roy, "and not a single clear picture!" Pyotr looked at him sympathetically.

Faster-than-light waves of space travelling beyond Sirius and Capella in a matter of minutes, had located many conglomerations of emissions receding from Earth, but they had not been decoded. Blurred images had flashed up on the screen from time to time, but it had been impossible to tell which were faces, which were trees, which were animals and which were buildings, while voices were drowned out by random interference.

"You have solved the most important part of the problem—the waves of space outline the clusters of receding brain emissions," said Pyotr. "It's been proved that everyone leaves behind a permanent memorial of his or her life; but that the letters inscribed on the memorial are so difficult to decipher..."

"They've been decoding brain emissions excellently on Earth for two hundred years," objected Roy. "But that it should turn out

to be so complex with waves released into space a long time ago..."

"That's just it! Your job is to carefully analyse the interference and find ways of overcoming it..."

An excited Henry walked into the room.

"The machines have been switched over to my system of search, Roy! You'd better face up to it: none of your suggestions have been left in the programs."

"If everything's been organised strictly according to your scheme, then I have no doubt of a failure," said Roy and left the room.

"I'm tired!" said Henry, lowering himself into an armchair. "Two weeks almost without any sleep... I hate the thought of a revitalising shower. But it's a pity to waste time sleeping! Roy adores showers. How did you manage on your long-distance journey?"

"We slept, Henry. There was a radiation shower for us too, and we sometimes resorted to it, especially after Aldebaran. But to adore them—no, that's not natural. When we had the chance, we slept the commonplace, wonderful terrestrial sleep."

"I'm going to have a nap," muttered Henry, closing his eyes. "About ten minutes..."

"Only not now!" Pyotr shook Henry by the shoulder. "When you two have a row, I can't understand either of you. Explain the difference between your system and Roy's while he's out of the room."

"System?" said Henry, opening his eyes. "Roy hasn't got any system."

Henry jumped to his feet and began pacing about the room. If he had to explain, it would be easier to do so while on the move.

Pyotr finally grasped that Roy was determined to take into account all the emissions of the human brain discovered in space, and after studying what they had in common, he wanted to try and decipher them separately. Henry was insisting that the search should begin with emissions of exceptional intensity, with those that were the most distinctive.

"Men with exceptional brain power have existed in all ages. Please don't get me wrong, Pyotr, I don't mean the acknowledged Titans of science... But ordinary people, perhaps illiterate peasants, perhaps geniuses, I'm not making any promises—those whose brains generated exceptional power..."

"It seems to me that your arguments make sense..."

"Tell that to Roy! Be sure to tell him!"

Henry lowered himself into his armchair again. Roy didn't show up, and Pyotr went on with his questioning.

"Roy hinted that you had certain personal reasons for doing this work... Excuse me for intruding on your private affairs..."

"I've nothing to hide. Have you ever heard of Albina?"

"I know she was your fiancée."

"Is that all you know?"

"I was on a mission to Procyon when she was killed in a planet-ship disaster. The news

came as a shock to us all. A charming, very beautiful woman."

"And unusually intelligent, what's more... Her death ... anyway, I thought about her every moment, I talked to her in my dreams and in my waking hours. I wanted to get inside her life, to see her as a little girl, a teenager, a young woman... And that's how I had the idea of studying the brain emissions radiating into outer space. Roy designed the machines."

"And how about your motive for beginning the work?"

"We've had no luck with Albina so far... Her brain's radiosphere is travelling somewhere between thirty-two and eight light-years away. She died eight years ago at twenty-four. But the brain emissions at such a close distance are in complete chaos. Our dear contemporaries think too intensively..."

Roy came in.

"The receivers have located a powerful brain signal eight hundred and fifty light-years from Earth, beyond Rigel and Betelgeuse! Let's go and have a look at it!"

## 2

At first, coloured blips jumped about on the stereoscreen, the vortex of spinning flashes imposing itself on a whirlwind of objects. Then order suddenly overtook the chaos. Numbers, symbols and letters appeared on the screen, character after character.

"Formulae!" exclaimed Henry.

"Formulae," confirmed Pyotr. "The oldest method, the beginning of algebra. Such formulae were used at the dawn of science."

"We seem to have hit on the mental processes of a mathematician," said Henry a moment later.

The decoded emission looked like the proof of a theorem. The unknown mathematician was calculating variants, accepting some and rejecting others: some letters disappeared as if erased, others stood out more distinctly—the proof was going from premises to results.

"What powerful concentration!" Henry couldn't help commenting. "That one is so absorbed in his calculations that he can't see a single surrounding object... What's that?"

The image of an ancient street appeared on the screen, a crooked, cobbled road going steeply downhill, red, three-storey houses with balconies and wind-vanes and, in the distance, an ox harnessed to a peasant wagon. A fat man in a beret and a dark cape, from under which protruded a lace collar, was walking along the street. The man had a flabby face with pouches under the eyes and his lips were twisted malevolently. He was carrying a walking-stick.

"You're so lost in thought, Monsieur-Counsellor Fermat, that you don't notice yourself bumping into the passers-by," said the man in the beret and he banged his stick on the cobble-stones. His voice matched

his face—hoarse and peevish. "Say thank you for colliding with me and not the wall, or you'd have an enormous bump on your brow!"

Another voice, dismayed and good-natured, now came from the screen.

"Your pardon, Monsieur le President of Parliament, at times I come over... Believe me, I am most embarrassed!.."

"I'm glad you're embarrassed by your own rudeness, Fermat," continued the man in the lace collar. "I'm fully aware that you come over queer at times. The question is what comes over you. You certainly don't have time to frequent your place of work. Well, I'm listening. What were you brooding about?"

"This is my lucky day, Monsieur le President. I have finally accomplished an idea I conceived a long time ago!"

"A lucky day you say? You've accomplished an idea you conceived? Why are you so delighted, Fermat? Have you at long last conceived the idea of dealing with the pile of work that has accumulated in your room in the Town Hall, because that is what's important? Will no one be able to point you out as an idler? Fermat, have you thought, perhaps, of coming to your senses, as is demanded by your noble origins and exceptional learning, and also by the common wish of our citizens, have you accomplished that? Oh, if that be so, Fermat, I shall exclaim with you, 'Yes, he has the right to be happy!' But why have you bowed your head?"

"Monsieur le President... Today I found the proof of a remarkable theorem, and what a proof!"

The fat man took Fermat, who was still out of frame, by the elbow.

"Let us take two steps to one side, Counsellor. Here is our esteemed Pélissier's barber's shop, and here is his sign—a street mirror. Look into the mirror, Fermat, and tell me what you see."

"A strange question, Monsieur le President! I see myself."

The other man was now looking out from the screen; he had a lean, elongated face, a high, flat forehead, a sharply chiselled nose over a tiny pencil moustache, black, wavy hair (his own and not a wig) and a white linen collar.

"I've seen his portrait in a museum," whispered Henry. "Just like him!"

"What lustrous eyes!" commented Peter. "And what nobility and goodness in the face!"

"Let's listen!" muttered Roy. "They're just eyes, after all!"

The two men on the screen carried on with their conversation.

"I'll tell you what you saw in the mirror, Fermat. You saw a remarkable man who has not achieved a position in society, who is losing the love of his betrothed and the respect of those around him... That is whom you saw, Fermat! And don't you go on about the silly proofs of silly theorems. I am your friend and, as a friend, I would say, 'You are

finished, Fermat!' All Toulouse is making fun of you! With the arithmetic of Diophantus in our time you will gain neither money nor status, nor love. Leave that old-fashioned stuff to the Ancient Greeks who found an unnatural pleasure in numbers and drawings, and get into step with the age. *Au revoir*, Fermat!"

"One moment, Monsieur le President!.. I was coming to see you to... I haven't had any salary for three months, Monsieur le President!"

The fat man banged his walking-stick on the cobble-stones again.

"Nor will you have any for another three months! Salary! You have no cause for complaint. Think on what I have said, Monsieur Fermat."

The fat man slowly climbed up the steep street, but the houses stayed still. Then they began moving—Fermat was going downhill. The street dimmed; letters and symbols showed through the brick walls and the cobble-stones: Fermat's brain was full of formulae again. Soon, nothing was left of the outside world, not even the silhouettes; only calculations that kept repeating themselves on the screen.

Then through the mathematical symbols a furnished room appeared—pictures and tapestries on the walls, tall carved cupboards in the corners. There were books everywhere in a gloomy room lit by a single narrow window—they were piled on the divan, they lay in heaps on the floor. One huge leather-

bound volume lay on a small table; on the screen, Fermat's hands were turning the pages of the folio.

An old woman in a mob-cap was standing in the doorway.

"Tear yourself away from Diophantus, Monsieur Fermat," said the old lady. "Have you managed to get any money? I haven't anything to buy groceries with, Monsieur Fermat. D'you hear me?"

"I hear you, I hear you, my dear Héloïse," came Fermat's hasty voice from the screen. "I hear you only too well... What d'you want of me?"

"I want to feed you, and that costs money."

"Unfortunately, my dear Héloïse, my appeal was not a success. The President threatened not to pay me for yet another three months."

"My God, what are you saying? Another three months without any salary?"

"A mere trifle, Héloïse! It's only ninety-one days. Sell something and we'll be fine for those three months."

"What can I sell? The most valuable things we have are the books, but you won't let me even brush the dust off them."

"I won't, Héloïse! Books are more precious than holy images."

"Don't blaspheme! Sell a cupboard, perhaps?"

"Exactly! What do we want so many cupboards for?"

"And where are you going to put your books? It would be better if I offered our

tapestries to Monsieur Peugeot, the old-clothes man."

"You're a clever woman, Héloïse! I've long been fed up with those tapestries. I'll take them down from the walls right now."

"Wait, Monsieur Fermat! I've just remembered that they're covering the places where the plaster's come off. Better sell the cupboards!.."

"You see, I said it should be cupboards in the first place. Send for Peugeot and leave me alone for the time being. I have an important calculation to do."

"You always have important calculations to do. But there's something else I must say."

"Do so, but be quick about it."

"It was Marie's saint's day yesterday. Did you forget it?"

"What? Forget my dear fiancée's saint's day? Fancy your tongue being so misguided as to say a thing like that, you foolish Héloïse! Why, Marie was all I thought about yesterday! I thought about her all the time."

"And you didn't go to congratulate her! You were invited, but you didn't turn up."

"Oh, damnation! True, I didn't go... It was yesterday that I had a magnificent idea, and I immediately sat down to work on it. Congratulate me, Héloïse, I have achieved a remarkable success!"

"All your successes in arithmetic won't help me to cook even some meatless soup. And they won't restore lost hopes of starting a family."

"What are you croaking about? What lost hopes?"

"I wanted so much for you to be happy, I loved Marie so much..."

"Héloïse, your tears are breaking my heart! Wipe your eyes. You said something strange about Marie, and I didn't understand."

"She called not long ago, your Marie. And she said that on the insistence of her parents and at the bidding of her heart, she was releasing you from your vows... She had decided not to link her life with yours... What's the matter, Monsieur Fermat?"

"You asked me something, Héloïse? No, I..."

"What are you intending to do?"

"What can I do?.. True, I loved her... But if you think it over there was never a woman on this earth who was content with love alone!"

"A lot you know about women! You know your arithmetic, but not women. Listen to me, Monsieur Fermat. Marie went away from here to vespers. Mass finishes in an hour. Go to the cathedral and sort it out with her. Promise to start a different life. She loves you, believe an old woman!"

"That, perhaps... Promise to start a different life tomorrow?.. Héloïse, you're bringing me back to life. Mass ends in an hour, you say?"

"In an hour exactly, so don't be late! And I'll go and ask Monsieur Peugeot to loosen his purse-strings and buy one of your cupboards."

Objects stirred and began moving about in the room: its owner scurried about from corner to corner. And again the objects dimmed ... and mathematical symbols, still misty, came through on the screen.

The screen was now filled by the folio that had been lying on the table. Fermat was turning over the parchment pages, then he took a pen and drew up a sheet of paper. Symbols and numbers crowded together. Fermat wrote down the calculation that would not go out of his mind. Only once was his attention distracted and he said, with a glance at the wall-clock, "Wasn't I supposed to do something? It's all right, Héloïse will come..."

Then, after he had wound up the calculation, he again turned to the folio and hastily, his goose-quill sputtering ink, began writing in the margins.

"I have found a truly amazing proof of this theorem," he wrote and read his notes aloud, "but the margins of the book on Diophantus are too small and there isn't room for it..."

He took a sheet of paper with a calculation on it, admired it for a moment—the screen was filled with symbols, letters and numbers—and, folding up the sheet of paper, he put it between the pages of the book. His face appeared on the screen; Fermat went up to the mirror. Enormous, slightly bulging, very kindly eyes glowed in the glass. They were laughing—the whole face was laughing.

"You're a happy man, Pierre!" he said

triumphantly. "What a day! What a blessed day! I shall tell you honestly, Pierre, the whole of your past life is not worth this one remarkable, this captivating day! I tell you, I tell you sincerely, there is no one happier than you in the whole world today!"

Fermat radiated happiness, and his descendants, witnesses of his triumph eight hundred and fifty years later, rejoiced with him. Coloured blips jumped about on the screen. The picture disappeared.

"How about that?" said Henry triumphantly.

"Your scheme's producing something," admitted Roy. "But Fermat was simply a lucky shot."

"We've evidently been present at the creation of the famous proof of Fermat's great theorem which was subsequently lost and which, as far as I remember, could not be restored by the combined efforts of the world's mathematicians for many centuries," said Pyotr.

"I'm going to check whether Fermat's theorem has already been proved," shouted Henry, and he disappeared.

"I think everything Fermat wrote on that scrap of paper will be fully restored now," commented Roy.

Henry returned, beaming.

"No! Not to this very day! Almost nine centuries have passed since then and no one has repeated his amazing proof! It was only natural that he should have rejoiced so! But this is what's interesting: after his death,

Fermat's notes were published by his son Samuel. Fermat must have got married nevertheless."

"He didn't spend every day working on his great theorem," objected Roy. "He found time for his bride too. There's another important point: on the great day, Fermat's brain was working so intensively that it far surpassed the average cerebral activity for his generation. Even when vaguely looking round the Toulouse streets and the interior of his room he preserved for us a vivid picture of the houses, objects, faces, and the voices of the president and old Héloïse..."

Another picture appeared on the screen.

"Roy, stop the commentary for a moment!" Henry interrupted him impatiently.

The decoder announced to the viewers that at a distance of a thousand light-years from Earth the receivers had intercepted yet another cerebral emission of such precision and power that it could be relatively easily converted into images and words.

"A thousand years ago!" exclaimed Henry. "Who could it be?"

## 3

It was a prison cell. The inmates were lying side by side on the floor; the light was streaming through a little square window under the ceiling, but the beam did not disperse, it merely pierced the darkness. The figures of the ragged sleepers were indistinguishably

alike and only one was noticeable in the gloomy mass. This man was just as wretchedly dressed and, like the rest, was lying curled up on the floor with his knees drawn almost up to his chin. A white steam of breath rose over the sleeping men, ice glimmered dully in the corners of the cell walls. Like the others, the man was breathing heavily and, like them, was groaning either in sleep or oblivion. His clothes and face could be seen in the half-light so distinctly and in such detail that it was as if he was being scrutinised from outside and everything else was merely background.

An unknown, whose cerebral emanations were being decoded across a thousand years, was taking an interest in one of the prisoners lying on the floor of the prison cell, he was staring at him with pity and sorrow.

The man on the floor was not lying in the sunbeam, but his head was illumined as brightly as if the light was falling on it alone. It was enough to glance at that strange head to single it out from the others and remember it: a round skull innocent of hair, a round face devoid of eyebrows, a very sharp, beaky nose, the thin lips of the scoffer, the pointed chin of the weakwilled, the massive brow of the thinker over a pair of small eyes, the hollow cheeks of the consumptive with a hectic, brick-red flush on the cheekbones. Without opening his eyes, the man was coughing, pressing his hand to his chest and wincing pathetically—his chest giving him much pain. Sadly, yet mockingly, without

opening his eyes, he clearly recited some lines of verse.

*But I am half a corpse, I fear,*
*Bathed in the clammy sweat of death,*
*And I can feel my end is near;*
*A thick slime robs me of my breath.*

"Listen to that, he's looking at himself!" whispered Henry. "It's as if he was looking at himself from outside."

"The poetry's by François Villon," added Roy. "There was a French poet of that name and he lived exactly a thousand years ago."

One of the men lying on the floor raised his head at the sound of the loudly recited verse. And the picture promptly changed. The cell was still there, but the prisoner who had been reciting the poetry had vanished and only his voice could be heard clearly. It was as if what was happening in the cell was now being observed through his eyes.

The man who had lifted his head was one-eyed and wild-looking.

"Feeling bad, François?" he wheezed. "You're in poor health!"

"If you'd spent half a year in the dungeons of that accursed Bishop d'Aussigny Thibaud at Maine, I'd worry about your health, Jacques!" grumbled the prisoner who had been reciting the verse. "I'll never forgive him!" And again, unexpectedly cheerfully, he began reciting verse.

*But, as the Holy Church maintains,*
*We should forgive our enemy.*
*But why? God will forgive his sins.*
*The one who won't forgive is me.*

Their conversation had made several more of the prisoners lift their heads. Scratching themselves and yawning, they huddled together shoulder to shoulder so as to keep warm.

"The hell he cares about your forgiveness," continued one-eyed Jacques. "D'Aussigny lives in a sumptuous palace, his prayers are delivered direct by the angels to the All-Highest in person. But your lot is to shine with your bald head in a cell. No one in the street will hear a scream from here, let alone a modest prayer."

"I shall pray and swear just the same, Robber Jacques!" protested François. "And if I do not pray for us all, with good rhymes and with tears, it will be the worse for you, you rejects! Or do you hope that the priests and the bishops are going to pray for you? The holy brethren are busy guzzling and gourmandising, they haven't time for you! Now hear my prayer."

In a piercingly tragic voice François half-declaimed, half-chanted:

*Lord, open up the Heavenly Portals.*
*We burned in Hell while we were mortals.*

A third prisoner joined in the conversation. He was lying in the corner where the ice was

glittering on the wall and even his voice sounded frozen.

"Why pray, François? In exactly forty-eight hours you will be successfully hoisted up on the gallows and, released from the burdens of earth, will soar to heaven. Save your fire for your personal explanation to the Lord, and put in a word for us in your conversation with the All-Highest. If, of course, you're not delivered from the gallows into the hands of Beelzebub, which is more likely."

Villon replied with some more verse.

*François am I, and feeling glum;*
*From Paris, near Pontoise, I come.*
*My high-strung neck, when I succumb,*
*Will feel the full weight of my bum.*

The cell responded with a howl of laughter. All were awake now and all were laughing. The prisoners looked from the screen into the hall at the invisible François and guffawed—evidently, he had made a droll face. Bolts grated and the warder came in. He was as tall as a lamppost and as thin. To cap the resemblance, his elongated head was reminiscent of a lantern. Incredibly long white moustaches stuck out on either side of the purple, seemingly scorched face of the gaoler.

He studied Villon reproachfully for a moment.

"Indecent couplets again?" he said disapprovingly. "Were you clapped into the best

prison in Paris just to roar with laughter? Oh, François, the day after tomorrow you'll have to render up your soul to God, but you distract good people with your merriment from pious thoughts of the bitter lot that awaits them!"

From the screen came the bold voice of the unseen François.

*Life's not worth living without jesting,*
*For otherwise it's time to die.*

"It's time indeed," confirmed the guard. "The day after tomorrow, I tell you. As a Christian, I feel sorry for you, because in hell they'll deal with you in earnest. But as a human being I'm glad, for with your going this will be a good prison again instead of the frivolous establishment you're turning it into."

"Listen, Etienne Garnier, I agree that I'm behaving none too seriously in prison," objected Villon. "But you can get rid of me without resorting to the gallows. I shan't object if you set me at liberty with a good kick up the arse."

"Set you at liberty?" The guard roared with laughter. "Because you're not very well suited to prison doesn't mean you'll be better off at liberty. François, you should howl with terror at the thought of liberty. Liberty has a bad effect on you."

"D'you undertake to prove that?"

"Of course. I'm no bachelor of arts like you, but what's mine is mine. And dealing

with your sort has taught me eloquence. I think I shall easily manage to convince you of your three errors: love of freedom, hatred of prison and an unnatural loathing of the gallows."

"Why, then, let us commence our disputation, dear master of the unfree arts of incarceration, Etienne Garnier."

"Let's commence, François. My first thesis is as follows... By the way, we must choose an arbiter first so that everything should be as in the Sorbonne!"

"You think that gaol is like the Sorbonne?"

"It's higher, François. At the Sorbonne you were a scholar, you've shown up here as a bachelor of arts. We don't detain scholars, but masters and doctors come quite often. And we feed our inmates, we feed them, François, but who feeds you in the Sorbonne?.. Anyway, what about an arbiter?"

The whole cell crowded round Garnier and François, roaring in chorus, "One-Eyed Jacques! Jacques for arbiter!"

"Let it be Jacques!" agreed the guard, and One-Eyed came forward. "So here's my first thesis: liberty has a bad effect on you, François. It kills you, my friend. You're thirty-two and you look like an old man. You're bald, your teeth have fallen out, your hands shake, your legs buckle under you and you cough blood—and all because of too much liberty, François Villon! You've ruined yourself with wine and women. I would add rhymes to that, but you disport yourself with rhymes in prison. What have you

achieved after so many years at liberty? You have less of it than at the moment when you came into this world, for you've squandered the health and the good start given you by your mother's nine months of toil. You have neither dwelling, nor clothes, nor money, nor food, nor job. What is in store for you if you break out? Starvation, loneliness and certain death in a month or sooner, an agonising death somewhere under a fence or on the bed of some doxy who's given you shelter out of pity. I await your answer, François."

"Garnier, cruel, muddle-headed Garnier, you don't even suspect how right you are! But I shall refute you just the same. Yes, or course, I've suffered from the excesses of liberty, but I've known excesses to my heart's content! Not always, but often, very often, I have been glutted to exhaustion. Women have loved me, Garnier—something that's not for you to understand for no one has loved you, you don't even love yourself! And friends? Where are there such faithful friends as at liberty? Fist for fist, knife for knife! And I agree that I would die in a fortnight if I was at liberty. But what a fortnight that would be, Garnier! I would drink my fill of wine, I would gorge myself on rich food, I would sleep my fill with paramours who did not begrudge me their caresses, I would roast myself at blazing hearths and I would forget the chill of your cell—that's what my fortnight's liberty would be like! That's my answer to you, Garnier.

But no, I do not fear the quick death you have so generously promised me!.."

"You're destroying your soul, not just your body, François. Liberty is draining your errant soul, my son. And the soul is more important than the body, believe me; many times have I seen how easily the body decomposes. Save your soul for a long life, François."

"I have a ready answer for that:

*"I'll yield my soul up with a will.*
*Made of the clay, clay shall I be.*
*He who's been poor and had his fill*
*Does not strive for longevity."*

"Well, both the thesis and the objection seem pretty convincing to me. So far no one is in the lead," One-Eyed Jacques declared.

"Now listen to my second thesis, François. You must love, not hate prison. Neither at home, nor in a monastery, nor in church will you encounter such truly Christian treatment as in prison. In here you're appreciated and treated according to your merits, François. You are supplied with a place to sleep here, but did you always have that when you were at liberty? You're fed regularly, not with fat capons of course, but did you taste capons outside? They keep an eye on you here, they worry about your health, they let you sleep in peace. And if you call for help, will I not come at once? Will our good surgeon, Monsieur Braque, not let your blood if you begin to choke?

Prison is the only place in the world where they won't reconcile themselves to the idea of your illness, where they won't allow you to die prematurely. His Honour the Judge said to me, 'Garnier, Villon must mount the scaffold on his own legs.' And you may believe, my dear François, that I shall lose my sleep at nights before I'll let your illness weaken you. Such is prison."

"To that I will reply: the charms of liberty have not become tarnished in my eyes because you have so eloquently portrayed the comforts of gaol."

"The thesis is a strong one, but your objection is unconvincing!" declared One-Eyed Jacques. "Garnier won on the second point."

"Third thesis; you should aspire to the gallows and not try to wriggle out of it," declared the triumphant Garnier. "There is no greater happiness for you than the respectable gallows. For you, François, the gallows is not punishment, but deliverance. Deliverance from the ailment that oppresses you, from the torments of your inevitable dying, from the pain in your bones and your lungs, from starvation and cold, from inescapable debts, from poverty, from deceitful friends, from all ills, from all the grief that fills your heart to overflowing. For you, the gallows is an escape to true liberty from the vale of grief and tears. One step, half a sigh and no more—and you will be in the realm of eternal relief and joy. And if, for all your merits, you do not go to paradise, but

somewhat lower than paradise, even there you will not suffer torments more bitter than those you knew on earth. Did you not roar out half an hour ago in this cell like a man possessed, 'We burned in Hell while we were mortals.' And think, François, that in those nether regions under paradise you will never have to complain about a lack of heating, but here you shiver even on sunny days. I tell you, hasten to the gallows, hasten to the gallows, François!"

"Stop it, Garnier, curse you! A plague, a plague on your evil heart! I don't want to die, you hear? I don't want to die, Garnier, curse you! My God, I want to live, only to live! Any life a thousand times worse than this, but life, life, life!"

"A minute ago you were bragging that death held no terrors for you!"

"Shut up, François!" said One-Eyed Jacques. "That was very unlike you. What are you bellowing about? Now listen to my verdict. The praise of the gallows thesis didn't convince me. A true Christian oughtn't to aspire to the gallows. François Villon wins that point, although he didn't deign to look for valid objections. But in general, the dispute has ended without results."

"You're not being objective, One-Eyed Jacques!" complained the offended guard. "It's your personal antipathies speaking, and you have silenced the inner voice of justice. Soon, you too will have to surrender your neck to the embraces of the hempen hands, and you hate the gallows in advance. Decent

people don't behave like that, and believe me, Jacques, I have cared for many decent people in my cells."

"Choose your expressions a little more carefully, Garnier!" bellowed Jacques. "I've been charged with banditry, robbery, violence and murder, and I did not deny the charges. But no one has ever dared reproach me with indecency, and I will not allow anyone..."

"Calm yourself, Jacques!" said Garnier amiably. "No one appreciates your merits more than I do. I know that you bear the name 'Robber' with honour. But impartiality and justice, those two inseparable concepts, are higher for me, are my family saints, if you want to know. I shall now show you what true impartiality is, friends. François!" He turned to Villon. "You asked me to take your written appeal against the sentence of the Parisian court. I personally consider, as I have already proved to you, that the gallows is the best way out for you. But, with the utmost reluctance, I have delivered your complaint to its destination. Expect a decision soon."

"Thank you, Garnier!" exclaimed the delighted François. "For that I will thank you in truly royal fashion: I shall write a ballad in your honour to immortalise your name!"

"It would be better if you didn't bellow your verses," grumbled the old man as he opened the door. "What a lot of trouble you make, François! There is no more serious official in any Parisian gaol than I, but you

make me laugh too with your foul couplets, that's what you drive me to, François!"

The door slammed, the bolts grated on the other side. One of the prisoners looked longingly through the little window. Clouds were gathering in the sky.

"Looks as though it's going to snow!" he said. "Snow—now that's all we need!"

"When the snow piles up, the frosts come down," objected Jacques. He went up to Villon and laid his hand on the other man's shoulder. His face filled half the screen and Jacques's single eye looked keenly and sympathetically at him. "Why so thoughtful, François? You'd do better to recite something."

"Recite! Recite, François!" resounded the shouts.

"I'll read you some verse written for a poetry contest at Blois, at the court of Prince Charles of Orléans. He set the theme himself to prove the unprovable. He wrote ballads along with the other poets, but I beat him at the game, and he didn't like it, apparently."

Only Villon's voice was to be heard now. The cell became indistinct and grey; Villon was reciting with his eyes closed.

*I die of thirst above the flowing stream,*
*Laugh through my tears, and when I play,*
*I toil.*
*Wherever I may wander is my home,*
*A foreign country is my native soil.*
*I do not know a thing, yet I know all.*
*The person I best understand's the one*

*Who sees a crow where others see a swan.*
*I doubt what's true and can't accept what's clear,*
*Bare as a worm, yet with rich raiment on,*
*Welcomed by all, I'm banished everywhere.*

Villon paused. The cell responded with guffaws and shouts.

"That's it! He's really got it, the rascal! Welcomed by all, yet banished everywhere—did you hear that? Jacques? No, you just listen—the swan's a crow... And over the stream, over the stream—from thirst, ha, ha, ha! No, François, the gallows isn't enough for you. I tell you, he knows how, friends, he knows how!"

When the uproar began to die down, François carried on.

*I'm stingy, yet as prodigal as can be,*
*I wait, but little good can come my way,*
*A beggar, I flaunt my wealth for all to see,*
*Frost crackles—I see roses bloom in May.*
*A fire is lit—I shiver in a trice,*
*My heart cannot be warmed except with ice.*
*A jest in memory just won't stay in there.*
*Contempt to me is honour beyond price,*
*Welcomed by all, I'm banished everywhere.*

The recital broke off suddenly and there was a sound of sobbing. The ugly, anguished face of One-Eyed Jacques filled the screen.

"François, what's the matter with you? Damn that Garnier, he's the one that's upset you! Calm down, calm down!"

"No one understands, no one!" muttered Villon's voice. "I'm so unlucky, Jacques! And you too, even you!.."

"Stop weeping! Who doesn't understand you? What are you talking about, François? You're talking about the gallows to which you'll be taken..."

"I'm talking about these verses from Blois... After all, it's the truth, Jacques, every word is the truth! I wept when I wrote them, because I've never written more sincerely about myself... And they all laugh, they all think I'm jesting. You guffawed, damn you all!"

Jacques wanted to say something, but he was interrupted by the clatter of the door bolts. Garnier came into the cell.

"François," he said, "the Court of Paris has pardoned you, my bald friend. The court sentences you to ten years' banishment from Paris instead of to the gallows. You may go free. But remember that in my heart I sincerely grieve for you, because I'm letting you go not to happiness, but into the clutches of an agonising death. I believe in your honesty, although you write indecent verse which will not outlive you, and you will yet call out to me in your heart, 'My good friend Garnier, you were right, the gallows would have been better for me than life!..' "

## 4

The cell was growing dark; Villon's passionate brain pulses, which had been weakening for a thousand years already as they sped

through space, were being drowned by the noise of other emissions. Ancient Paris appeared for a moment, a dark alley, crooked houses, upper storeys crowding in on one another, a sewage collector with a barrel filled to the brim, a grinning face that filled half the screen: "Ah, François, is that you? Come here, dearie, let me give you a kiss!" For another minute the firewood blazed up in the hearth, the flames burst outwards, now receding, now drawing nearer—Villon, shivering, crawled towards the fire and recoiled from the heat. Then these scenes disappeared. No more images appeared on the screen. Roy switched off the machine.

"Shall we never guess the secret of his death?" said the disappointed Henry. "As far as I remember, it's a mystery."

"Let's sum up," proposed Roy, ignoring his brother's complaints. "It seems to me we could have a discussion both about the results and about our future tasks."

Pyotr only half listened to what his colleagues were discussing. He was haunted by a remarkable feeling; he wanted to fathom it and was already about to leave when Roy turned to him.

"Aren't you interested in our propositions?"

Pyotr forced himself to listen more attentively. The staff were approving an idea of Henry's to search for emissions of great intensity so that they could decode them and begin their acquaintance with a chronicle of

people who had died long ago. But that was not enough. It was necessary to update the machine so as to read any wave radiated by a human brain. To ascertain and record the life events, thoughts and feelings of all people who had once lived on earth. There was not one of them, from Neanderthal man to contemporary, whose life would not deserve study. What in former times had been called the science of history had been only a catalogue of actions and dates concerning separate outstanding people: the intellectually powerful scientists, engineers, great creative artists, important military leaders and monarchs. Their institute would now undertake the study of the biographies of all people on an equal footing. All the most simple people would become equal to the great. Something like two hundred thousand million people had lived during the time of humankind's existence on Earth. To compile two hundred thousand million biographies and develop a new science of human history—such was their objective.

Pyotr listened carefully to the arguments and propositions, honestly trying to make sense of everything, but his thoughts were taking a different direction... Again he saw the steep street in Toulouse, the cold cell of the Paris gaol. Presidents of Parliament conversed with him, as did gaolers, tramps and thieves. And Pyotr wanted to interrupt the discussion and shout at the top of his voice, "Listen, don't you understand what this is? It's another world, a totally different

world, and it's all of a thousand years away from us!"

Yes, of course, he himself, and the institute staff, and that same Roy and that same Henry—all had studied history. From books, from lectures and from stereopictures in the museums they had learned about humanity's past which had begun to make itself heard so unexpectedly from the screen today. There's nothing new in this life, he had known all that before. Everything is new, everything! He had previously only known that epoch in the quietude of his reflections, but he had not felt it emotionally. He had felt it today, however; he had experienced it as a shock, he had been inside it and he had recoiled in horror!

And Pyotr thought how he and all the people of his time would probably never understand their forebears who had been grieving and laughing on the screen today. Most of their worries, and sufferings, nearly all their ills and joys were alien to contemporary man. There were no counsellors any more, nor presidents of Parliament, nor gaols, nor gaolers, nor consumption, nor tramps, nor loose women, nor starvation, nor premature old age, nor violence done to creative work. Nothing, nothing now united them with the forebears who had dwelt in such torment on Earth, there was no sense in identifying with their now obsolete sufferings; they could be the subject of learned discussions, but nothing else was required.

Pyotr kept silently repeating this to himself for self-reassurance. But reassurance did not come and his confusion became more and more distressing. He had become sensitive to alien suffering and pain, and he himself was quivering with pain and was suffering for all those unknown people whose miseries had ended a long, long time ago.

Henry nudged his friend.

"You look as if you were going to burst into tears! Answer Roy's question."

Pyotr stood up.

"I'm afraid I can't say anything of interest to you. Allow me to leave, I'm tired."

## 5

It was night, and Pyotr was walking alone along the deserted boulevard. He could have called an aircab, but he didn't want to go home.

He sat down on a bench, looked up at the sky and found Sagittarius. From where he was sitting, the constellation was tiny and faint as seen with the naked eye. Pyotr covered his face with his hands. He was beset by emotions that had once troubled him during a long expedition to the centre of the Galaxy.

"Emptiness," he whispered, remembering the terrors he had experienced and overcome. "My God, an absolute abyss! And we survived it!"

Or had they? It had all been left behind and it was all happening again. He sat with closed eyes on the bench in the nocturnal boulevard, but he was speeding into a gigantic cluster of stars. There were so many of them that in their terrifying remoteness they looked like a small cloud of mist, a glowing, blurred blob whose twinkling light was scarcely visible through the dark masses of cosmic dust... No, how had they put it at the time? There is a stellar conflagration blazing at the centre of the Galaxy and the flames are shrouded in cosmic smoke. Yes, that was how they had put it. They had joked and worked, they had needed to keep their spirits up with jokes and work, for there was an abyss around them. They were in an abyss, and they were falling, and falling, and falling into it all the time—but the abyss was bottomless.

Yes, that had been the main torment, if torments could be mentioned. Perhaps only the first cosmonauts, as they moved at slower-than-light speeds, had experienced something of the kind. Emptiness merely separates the glowing spheres with the planets going round them; and that emptiness is not absolute, it is easily overcome—such is this region of the Universe, the stellar birthplace of humankind. Nobody here falls ill with the malaise of emptiness, such an illness is inconceivable here!

But they had been tormented by a constant fear of the immeasurable emptiness—the horror of the unfathomable abyss. They had hungered with a special kind of hunger,

a craving for material objects. They had thought it unimportant what that matter might be: a star or a misty cloud of dust, a planet or a swarm of meteorites, anything but that dread abyss. Such had been their condition during their many years of plunging into that abyss!

No, they would never experience those emotions again in stellar space, however far they might speed on their next expedition.

The limitless abyss, the immeasurable void in the Universe did not exist any more. The emptiness of the Universe was not empty.

Pyotr looked up at the starry sky again. Waves of newly discovered emissions were rushing through outer space. Crossing and colliding at every point, they were travelling from and in all directions. Two hundred thousand million wave-spheres, the chronicle of the lives of people who had existed once upon a time; millions upon millions of wave-clouds created by different rational beings, perhaps, and not millions of millions but trillions of trillions—they were all there, in the interstellar void. Stars are born and die, galaxies form and disintegrate, and everywhere in outer space there are wave-signals of life that were once generated somewhere in the Universe, fading but indestructible. No, it was not the immeasurability of the ominous emptiness, but the joyous co-presence of the living and rational beings that had once existed—that was what they were hence-

forth destined to feel in interstellar space.

And Pyotr experienced something even more amazing than what he had felt during the experiment... He seemed to have looked at himself from outside and saw passing through his body—from all directions and in all directions—waves generated long ago and recently by dead rational beings. He seemed to become a focal point at which these hitherto undiscovered emanations intermingled. Millions of others who had long since departed were teeming in his own small body as it lived its own small life.

A chill ran through him. He felt cramped by the jostling, alien lives that were filling every cell in his body. The picture was inconceivable. He threw back his head and laughed, shaking off all the phantoms. In that long-distance expedition to the centre of the Galaxy, they had met with much that had been hard to portray as a visionary picture but which had easily lent itself to scientific analysis. It was important to understand it. This revelation that had come to him was simple and based on material laws.

He walked on, rejoicing at his new understanding. He would never be overtaken by the terror of loneliness again. Life would be with him everywhere, as immeasurable, diverse and eternal as matter itself.

# TOWARDS THE PROBLEM OF THE AVERAGE

## 1

"I'm not going," said Henry. "What have I lost on Leonia? And what will I find there? Such assignments are not for me. I'm a physicist, not a sociologist."

"I'm a physicist too," commented Roy with restraint. "And to that I shall add, if you will permit..."

Henry flared up. When he lost his temper, it was no use arguing with him.

"I will not permit! Go yourself. Thanks to your amiable consent, we're being turned into oracles that solemnly announce the solutions to any riddles you care to mention. The role of Pythian priestess, even when armed with twenty-fifth-century technology, doesn't suit me at all. Till we meet again, and not too soon, I hope."

Roy went off to his room. Henry truly needed to spend some time in solitude. Exploring the "bottomless abyss" had been a heavy drain on his nerves. And if he had been able to overcome his fatigue quickly in the past, the rest prescribed by the doctors now smacked of ordinary treatment. Roy realised that the endless series of missions was overtaxing his brother's physical and mental resources, and he had suggested a trip to Leonia solely because he looked on the assignment as a kind of holiday. Henry lost

his temper at the more mention of the planet's name. It was easy to convince him, but impossible to make him change his mind.

Before leaving for the spaceport, Roy nevertheless looked in on his brother. The electronic secretary informed him that Henry had booked a holiday on Mercury. Roy shook his head. Excursions over the scorched, wild Mercurian landscape would be much more arduous than strolls on gloomy Leonia. Trust him to opt for such a means of recuperation. He paid even less attention to the doctors' recommendations than to his brother's attempts to persuade him.

On board the spaceship, Roy wound up some unfinished terrestrial business: he radioed instructions for the lab and allocated their duties to the staff. Only on Mars, when he was transferring from a spaceship to a starship, did Roy switch from the sphere of terrestrial interest to that of space assignments. He admired the twinkling stars on the stellar screens and mused about Leonia. For a physicist, Leonia was of little interest; it was the world of a dying star, a degenerate civilisation of feeble creatures that looked like earthly grasshoppers magnified a hundred times. Henry had good reason to refuse to make the journey: the general opinion was that Leonia needed sociologists, not physicists. Roy was glad that he had agreed to go. He had been asked for help by Kron Kwama, the sociologist. No one on Earth would even

dream of questioning Kwama's abilities. If a man like him admitted that he was helpless, it meant that the task was exceptionally difficult.

Roy occasionally switched on an information report from the Directorate of Long-Distance Itineraries. A subdued voice was heard in the lounge: in a report to the Big Council on the state of affairs on Leonia, Kwama was slowly unravelling a tangled history of internecine strife and bloody wars. Society on Leonia was perishing, its lean existence was becoming even leaner. In their legends, the Leonians preserved memories of a golden age of relative material prosperity, but there were no legends of even a short period of public order. The group of the strong in society was the group of the predators. The stratum of the eminent was the stratum of the greedy. Those who seized power also seized the benefits. Those with lofty rights insured themselves with bottomless pockets. Society was polarising into hostile factions. This was gradually leading to degeneration and impoverishment. The four-winged inhabitants of Leonia, who had been intrepid fliers in their legends, were giving up flying and were merely crawling, some out of weakness, others out of gluttony and greed.

Approximately a hundred local years ago, power was seized by a certain Karr. This dictator withdrew all rights and privileges and obliterated all social distinctions, but united the winged ones with sacred holy obligation—

to submit to him. After a brief and savagely suppressed resistance, the Leonians gave in. Karr and his intimates staged wild feasts round the fountains of simba and ridiculed the subjugated masses. When Karr died, power quietly slipped out of the drunken clutches of his friends and was just as quietly taken over by the average Leonians, as the new rulers of the planet styled themselves.

The rulers of Leonia, who were average in the exact meaning of the word, as Kron Kwama reported, were chosen from the middle class of society and were checked for average height, weight, intellect, mode of thought, customs and prejudices. Those devoid of peculiarities were considered ideal. The cabinet of ministers, and there was such a thing on Leonia, consisted of Leonians who had passed a test for mutual likeness. The official name for the rulers was "the indistinguishables". Life passed under the slogan "Nothing ever happens". The Leonians affirmed that the history of Leonia once full of vivid events, had exhausted itself. There was to be no more history, only an incessant, self-repeating existence. Only what had already been. The same food, the same dwellings, the same attitudes, clothing, words, colours, thoughts. A total ban on anything new. Novelty was equated with criminality. A Leonian who passed something new on to his neighbour was subject to trial. He would be acquitted if he could prove that there had been nothing new, heavily fined if a forgotten precedent was discovered among the

information and arrested if the court established that the incriminating matter was without precedent. At six-hour intervals, from the heights of the city crags, the announcers sang in melodious middle-register voices, "Rejoice, there is no news".

Leonia was a paradise for the weary: such was the sad comment passed by the terrestrial sociologist. The realm of the poor in spirit. Leonia was monstrously trying to accomplish the preservation of established prosperity, to fulfill the ancient dictum, "Stop, moment, you are divine!" But a moment is of all too brief a duration. In absolutising "today", the Leonians were destroying their "tomorrow". The body of Leonia society was being consumed by inner rot. The rare attempts to avoid a terrible end only brought it nearer. The philosophy expressed by the formula, "Only the known", had emerged as a profound and, in its way, sincere protest against oncoming doom. And the paradox, inaccessible to the Leonian mentality, was that with this philosophy they were only accelerating the flight to disaster.

"We're trying to help the Leonians," said Kwama in conclusion, "but any kind of help entails innovations and they are categorically rejected. My group of sociologists announces that developed aid projects cannot be implemented. Please send an experienced physicist to Leonia."

"I'm so glad it was you that came," said Kwama as he embraced Roy. "I never even dreamed of such great luck!"

"Not as great as all that." Roy felt flattered and smiled. "If I hadn't been able to, someone else would have come."

"Someone else is someone else!" objected the sociologist gravely. "What's easy for you could be too much for another."

"Meanwhile, I've no idea of what I'm supposed to do... What a miserable landscape it is on Leonia, friend Kwama!"

They left the cosmodrome in a two-seater open aircab.

The mountainous and gloomy planet lay stretched out below them. The brown slopes of the hills were edged with grass and russet mosses and small lakes full of jet-black Leonian water opened out between the hills. Orange lights glowed on the hilltops; these were the sites of Leonian cave settlements. No forests or bushes grew on the planet, but the tall plants created for Leonia on terrestrial astro-botanical nurseries had not been constructively developed. Everything was stunted, with smudged outlines and half-tones, red and violet predominating.

This strange combination was a startling sight. Roy was accustomed to red and violet as opposites; on other planets he had visited, red was neighbour to orange and violet to dark blue. The laws of the spectrum on Leonia were different. The jet-black water

was totally transparent; every pebble was visible three metres down. The dense atmosphere clothed objects in shades of violet. Roy was well aware that Lon, which gives life to Leonia, was a type M-6 star, a standard red star, a stellar old inhabitant which had enjoyed a long life-span and was now fading. But the planet's strange atmosphere had transformed Lon too—an amazing red and violet sun shone in the planet's gloomy sky. It gave little light and even less warmth.

"Life is only possible here in the equatorial zone," said Kwama. "There's enough oxygen, though."

"Are you sure that physical conditions can be improved on Leonia?"

Kwama shrugged his shoulders.

"Our astroengineers are in a cheerful mood. We can't arrest the progressive ageing of a star. It's a process that takes millions of millions of years. Leonia's too far away from its star, that's the trouble. According to the project, annihilation engines implanted in the planet's body will change its orbit. But it will take hundreds of years to carry out such a scheme, and what's going to happen to the Leonians in the meantime?"

"Are you afraid their civilisation is doomed?"

"They're degenerating," said Kwama sadly. "It's hard for you to imagine the speed of the social disintegration that began before we arrived. And we can't halt it for the time being."

The aircab touched down on the roof of

a man-made building. Kwama invited Roy inside. Roy stayed on the terrace. In the distance, he could see the glitter of a black lake and the orange glimmer of the cave settlement lights. It was possible to breathe easily here, though the air was on the heavy side, it was also gloomy in a sort of way. Everything was sombre on Leonia; it was the twilight of the planet's existence.

"And so you can't help the Leonians," said Roy when they went into the lounge. "It's a matter of the social system, not material benefits, if I rightly understood your report to Earth, Kron."

"Not quite," corrected the sociologist. "We've reorganised the planting-out of nutritive mosses, we've fertilised the soils, we've introduced cave heating. We've significantly reduced the material privations of the Leonians. And they appreciate it."

"I was talking about the social system."

"It's satisfactory in its way. There are no more warring classes here and there's no exploitation. The tragedy is that Leonia is a society of the average. The difficulties here are not so much social as moral; I would even say psychological."

It was as light as on Earth in the lounge. The luminescent walls cast a soft light on the faces of the two men. Kwama alone had met Roy and talked to him—his colleagues were on duty or resting. Kwama, a burly man, broad-shouldered with fleshy lips, was a head shorter than Roy. His skin had retained the ebony hue of his black ancestors; he didn't

want to exchange it for the bronze tan now fashionable on Earth. He spoke excitedly; this was a man passionately attached to his work. Roy wondered how much objectivity there was in Kwama's analysis. And as he considered the sociologist's explanations, Roy reflected on the man himself. Kron Kwama was not one of the old-timers on Leonia. An excellently equipped astroengineering station was already operating when he arrived. Before coming to Leonia, Kwama had worked for twelve years on the terrible Tibold-3. He had been appointed to the system of the seven Tibolds immediately after university and had flown out there with his young wife Regina, also a sociologist. The pair were sent on a three-year posting. During that period, Kron and Regina managed to advance the social development of that difficult planet a long way. But total peace was not established. On the day when Kron and Regina were to fly out, there was an uprising of the planet's former overlords in the Capital. It was suppressed by the inhabitants themselves, but Regina was killed. Kron loaded his wife's body on to the starship and stayed behind on the planet.

Someone expressed the apprehension that the sociologist might take his revenge on the beings who had killed his wife. Kron Kwama was impeccably just. The category of vengeance did not exist in his sphere of concepts. For nine years he improved on what he had failed to finish during the years of his posting. Then Earth demanded Kron for Leonia

and there was nearly more trouble on Tibold-3; the Tiboldians did not want to let their friend go. They deluged the Big Council with protests, but finally accepted the situation and gave Kwama a magnificent send-off.

Kron Kwama was now considered the world's best specialist in the regeneration of societies in need of urgent help. He was also one of those representatives of Earth on the distant planets whose demands the Big Council met quickly and in full, even if enormous outlays of material resources were required. The inhabitants of Leonia were lucky to obtain such a champion of their interests.

But Kwama could lay it on thick as well.

"It's all to do with their damned philosophy of the average," he repeated with a sigh. "I'm convinced that mediocrity is the most abstract of abstract concepts on Leonia. And it's false! There is nothing to correspond with it in real life. There are no such things as averages, but I can't convince the Leonians of this."

"I'm afraid you haven't convinced me either," commented Roy quietly.

"But it's as plain as a pikestaff!" said Kron impatiently. You only need to think hard about the concept called the average Leonian. It's something mathematical, not physical, a set of numbers, a catalogue of dimensions and weights, a table of names! They take all the Leonians and work out the arithmetic average of a hundred and four parameters: height, weight, shape and colour of

wings, colour of eyes, character, enthusiasms, vocations and goodness knows what else. And the resulting mass of statistics is lovingly set out in a rectangular matrix and that matrix is called the normal Leonian. There is no such thing as a normal Leonian in reality. Theirs is a race of weak beings which is sinking lower and lower because it's trying to preserve its norm. Roy, try and think about it! There can be no stability in nature, everything is changing. We won't even discuss mutations, it's enough that the difficult living conditions are leading to deformities and diseases, so that the race is deteriorating. But even the deformities are included in calculations of the average! Even before us, they were organising hospitals on Leonia and were having some success in pulling up those who began to sink below the norm. They were struggling with upward deviations—the excessively strong and gifted cases; but there were less of them, they were not a serious danger. However, the struggle with deformities and diseases weakened as the deformities and diseases themselves proliferated.

Roy raised his eyebrows.

"It seems to me that it should be the other way round: the more widespread the diseases, the more strongly they should be fought."

"Yes, should be!" exclaimed the sociologist with annoyance. "According to our logic. But they have a logic of their own. They include the sick and the deformed in their calculations of the norm! The more of

them there are, the lower the norm. And the lower the norm, the less deformed are the deformed and the less sick are the sick. If this nightmare goes on, the completely fit Leonian will became a social menace."

"Won't an improvement in social conditions lead to fewer diseases and fewer deformities?"

"Yes, of course! But if there is a steep rise in living conditions, many completely normal Leonians will soon appear. Then they will be declared unacceptably above the average. And they will be diligently cured of their health and relieved of their talents. You're forgetting the social philosophy of these beings. It's so different from ours that it seems crazy. A rapid improvement in living conditions for the Leonians would be no less dangerous than their present slow degeneration. Their gloomy philosophy is their worst enemy on the road to social betterment."

"You asked for a physicist to be sent to Leonia, not a philosopher."

"Yes, Roy, a physicist. I want to try and save the Leonians within the framework of their own philosophy. The Leonian mentality won't cope with a sudden reform, we must act circumspectly and without undue haste. For a start, we must accept the category of the average Leonian as a normal social unit, but remove deformities from the estimate at least. This will immediately raise the standard of level of averageness. They are terrified of novelty. I am trying to convince them that deformities are a novelty, not the usual

thing, and the Ministry of Averages—they have such a thing—shouldn't include them when calculating the norm. The exclusion of deformities makes it possible for us to prevent the standard falling and this alone would be a great step forward. But we would subsequently cast doubts on the legitimacy of the very philosophy of averages. Thus by reconstructing their economy, we would pave the way to the reconstruction of their psychology."

"Am I to help you in this, Kron?"

"Precisely, Roy. I need a filter that will automatically exclude all the deformities from the norm calculations. Something like an electronic extension to the calculator at the Ministry of Averages. It would plot a line for the improvement of the species. And they must believe it to be a reliable aid. D'you see my point?"

"Well, it's possible to work on such an instrument. Answer me one more question, Kron. I understand you have a profession which means helping our stellar brothers in distress. No, not a profession, a mission," added Roy, correcting himself when he noticed Kwama make a gesture of protest. "Everybody knows that only those with exceptional spiritual qualities are selected for astrosociology. But you put such passion into saving the Leonians... It's hard to account for it with a sense of duty alone."

Kwama laughed quietly. His elongated, deeply lined face became broader and softer. Suddenly, for a moment, he changed from a

restrained, ageing man into a person with the naivety of a small boy.

"Nothing could be easier to answer than your question. The answer consists of one word: love!"

"Which means not just a professional compassion..."

"Roy, I just don't know any other stellar race that deserves so much love! They are charming creatures, as you will soon realise. They are kind, hospitable, very sincere and very devoted. The analysers show gigantic brain potential—only man's is superior. They are intellectually above all the stellar peoples known to us. And they are so helpless. Roy, they have such a hard existence!"

Roy stood up.

"I want a rest. When can I start work?"

"I'll take you up to your room, Roy. After you've had your rest, you'll meet the most important Leonians—the most standard ones, of course. We shall visit their hospitals and prophylactic clinics."

The room set aside for Roy consisted of a study-cum-bedroom. A control panel, screens, and a music adapter stood near the bed opposite which was a blank wall. This was standard expedition living quarters. Roy confidently pressed one of the buttons and the wall divided to reveal an exit. He went out on to the balcony.

Leonia looked the same as when he had seen it from the aircab: sombre, silent, violet and red. A few pale violet creatures

flew past in the distance, and he could not hear the sound of their smoothly beating wings. A dim light lit up on the summit of a crag which came close to the expedition building. From it came a tuneful phrase chanted by a thin, sad voice: "Dzi dzinano–dzidan dzen!" The voice uttered the phrase three times and was silent. Roy glanced at the portable decoder left on the table, but did not pick it up. The phrase needed no translation. "Rejoice—no news!" the sad voice had affirmed. Roy grinned. He was sure of his powers. It would not be difficult to design an instrument that would perform the function of an explosive detonator to blow up the Leonians' philosophy from within.

## 3

They were flying in one after another, four violet grasshoppers, except that they were giants compared with the earthly species. When the first of the visitors settled down in front of Roy on four legs—two front and two middle ones—his head was level with the standing Roy's eyes. On the neck of each one glittered a flexible decoder, translating the Leonian tongue into human and the human into Leonian. A thin voice, indistinguishable from the one that had proclaimed the lack of news the day before, intoned a welcome.

"The group of 'indistinguishables', consisting of the minister and his assistants, is glad

to meet you, Roy. The Indistinguishable Izz, Minister for Averages, average up to three millionths in the current period, tolerance variable," was the translation that Roy heard—the decoder was talking in the human language, but with the thin, melodic voice of a Leonian.

"The Indistinguishable Uzz, Assistant for Statistics, average up to three millionths in the current period, tolerance plus," came the second voice.

"The Indistinguishable Ozz, Assistant for Restoration of the Norm, average up to five-ten thousandths, tolerance plus," announced the third.

"The Indistinguishable Yazz, Assistant for Intercepting Hyper- and Sub-Normalities, average to one thousandth, tolerance plus," said the fourth, concluding the introductions.

Roy bowed silently and held out his hand to the winged "indistinguishables", who touched it in a friendly way with their long antennae. Roy had known that he was going to meet rational beings, decent and helpless, as Kron Kwama had attested, and there was no cause to doubt the sociologist. But Roy had no idea that the creatures, externally so unlike human beings, would have such intelligent eyes, that their whole outward appearance, their very movements and sounds and the sheen of their wings would reveal such grace, such restrained nobility. And that they would explain themselves with such clarity and with such childlike solemnity! Roy's heart was touched by a warm sympathy

for the inhabitants of Leonia. He now knew that, like Kwama, he was going to be motivated by more than just a sense of duty.

"Let's go, friends," suggested Kwama. "We shall continue our acquaintance in the prophylactic clinic."

The Leonians flew off in descending order of averageness—the minister first, followed by Uzz, Ozz and Yazz. Kwama summoned an aircab. In the gloomy air, the violet wings of the Leonians shone dully as they sped towards a distant mountain. Roy turned to Kwama.

"What does variable or plus tolerance mean? It must be an important attribute if they mention it so importantly."

"Tolerance is indeed an important characteristic," confirmed the sociologist. "It indicates deviation from the average Leonian. Positive tolerance means that the bearer exceeds the norm within allowable limits, while negative means that the Leonian is below the norm. Variable tolerance signifies that the deviations are random, now plus, now minus, compared with what is currently an exact coincidence with the calculated image of the average Leonian."

"Is this ideal average obligatory for a minister?"

"Absolutely. However, Leonian society is democratically inclined in its way. Any individual can become a ruler if he is average enough. The ministers are re-elected periodically from those Leonians who are the most average at a given moment. And they

must be very similar to one another, which is why they are called indistinguishables."

"Yet their assistants all have a plus tolerance, that is, slightly above the average."

"You've hit on the essence of the problem. The plus tolerance appeared after the last estimate. At the moment of election they were ideally average. Izz had a minus tolerance and was assistant to Yazz. After the latest examination, Yazz became one of the pluses and gave way to Izz, who had become ideally average. And since the norm is gradually decreasing, the next statistical levelling will take Yazz out of the ruling group."

"Is there any threat to him in this?"

"None, except for wounded vanity. Yazz will become an ordinary citizen of their society."

"Another question, Kron. If these delightful grasshoppers hate novelty so much, how did they react to human beings landing on their planet? Were they outraged by this exceptional occurrence?"

"There was no outrage, there was bewilderment. But our astroscouts soon won the friendship of the natives. Now in the eyes of the Leonians, the expedition's station is an ordinary phenomenon of their reality. Mutual relations with human beings have been included in the normative of averageness."

"There's something encouraging about that," said Roy pensively. "It would be worse if the Leonian world outlook were to be drained by stupid conservatism."

The hillslope was dotted with dark openings. The four "indistinguishables" disappeared into one of them. Kwama said that they must leave the aircab and continue further on foot. He was the first to go into the opening. Roy followed him.

The "indistinguishables" were waiting for the two men in a narrow tunnel. Its end was lost in pitch darkness, but close at hand everything was clearly visible, in the same red and violet light typical of the planet. Roy discovered to his astonishment that the source of the light was the Leonians themselves: the glow was coming from their bodies and their flexible, strong legs; their eyes looked like lamps, and particularly soft light was emitted by their wings. Back at the station, Roy had already noticed that the wings of the Leonians were covered with patterns in the same violet and reddish tones, but now every line, every spot on the wings was glittering. When the Leonians moved their wings, bringing them nearer to or further away from the walls, the walls brightened or darkened accordingly.

Once in the tunnel, the "indistinguishables" did not fly any more but folded their wings and moved about on their legs. They obviously found it hard to accommodate their run to the unhurried pace of the humans. They would stop, wait, then hurry forward again, then stop once more. When they began to run, the tunnel darkened, only four shining blobs shimmered in the distance. However, the tunnel was immediately irra-

diated by a sombre glow when they stopped—engaged in a weird struggle, darkness and light were constantly exchanging roles.

"We're in the prophylactic clinic," said the sociologist.

Roy felt as if he had ended up in the gigantic hall of an ancient terrestrial railway station. The impression was heightened by the Leonians scurrying about everywhere, settling on the ground and flying through the air. And although the gigantic cave was generously illuminated, the light everywhere was that generated by the Leonians themselves, by their bodies and their wings.

The inmates of the prophylactic clinic noticed that they had visitors. At first, the Leonians nearest to Roy and Kwama flew up and circled in welcome round the human beings, then those who were nested further away also flew up. Roy imagined that a storm of colour had burst in the cave; a gigantic reddish violet flame was rippling outwards. A minute passed, Roy and Kwama found themselves standing with the "indistinguishables" at the centre of a kind of fiercely blazing explosion.

"What are you standing there like a statue for?" said the sociologist reproachfully. "Wave to them and they'll understand."

Roy waved both hands. A second explosion of light overlaid the first, so violent was the glowing of wings and bodies. Then a calm fell, the grasshoppers flew to their places and their wings folded. The "indistinguishables", still in the same order of precedence,

hurriedly moved their strong, dry legs and the two men followed on behind.

"Caves make strange dwellings for grasshoppers," commented Roy.

"Strange for terrestrial grasshoppers," retorted Kwama, "but the Leonians are a special race of rational beings. Leonia is subject to atmospheric storms. If they built their dwellings outside, the first hurricanes would destroy them. Haven't you been wondering, Roy, why this place is called a prophylactic centre?"

"Yes. What's the explanation?"

"All who deviate from the legitimate tolerance limits of the average are here. Those above average, and those below."

"And what do they do to the unhappy ones who deviate from the standard?"

"Why 'unhappy'? You have excessively terrestrial criteria of happiness... The staff try to return to the norm all who have deviated from the standard."

"They are given treatment?"

"Yes, in hospitals. The Leonians have worked out special methods of returning patients to the norm. Those who come to the prophylactic centre are surrounded with care, sincere warmth..."

"A holiday centre!"

"No, they work, this is not a holiday centre. There is special food here though, served to each according to taste, and physical and mental exercise and, in general, the emphasis is on recuperation."

Roy wanted to know who the patients

were and what was wrong with them. Izz summoned the duty officer, a Leonian like himself, but without a "z" in his name: he was called Agg. Agg called out the names of the convalescents and they flew up one after another. The first had a bent wing; the second had bad eyesight, the third complained of weakness in the legs; the fourth had oversized wings and made too much noise in flight; another, a depressive by nature, lapsed periodically into spells of inexplicable apathy; another rejoiced for no particular reason; there were idlers too, skiving off work, but gobbling down their food with gusto.

"You consider that these creatures should not be helped to rid themselves of their shortcomings?" asked Roy, with amazement.

Kwama looked at him reproachfully.

"You still haven't clearly understood my intentions! One has to struggle with failings and shortcomings in all civilised societies. All I'm against here is that the shortcomings are included in calculations of the norm; in other words, they are treated as something which, if not actually normal, is incorporated into the norm. In the hospital you will understand this more clearly."

The hospital, separated from the prophylactic centre by yet another tunnel, was no less enormous a hall, also subterranean, but much more badly lit. The arrival of visitors did not generate a storm of luminous joy. The dull glow from bodies became only a trace brighter. Izz called the duty officer.

His name was Arr. He seemed in no hurry to introduce Roy to the patients.

Nor were they in a hurry to be introduced. Roy proceeded from one to the other. Each patient bore the baleful stigma of deformity or degeneration. Normal Leonians had four wings, six legs, two eyes, a smooth body and resonant speech; they were all quick-moving and capable of logical thought. But here Roy saw cripples with one eye, three legs, twisted legs, a warped body, all hissing, twittering, glowing dully, altogether devoid of luminescence, thinking with difficulty, totally deprived of speech...

"What a terrible hospital!" exclaimed Roy, his face white. "Tell me, friend Kwama, are they all beyond hope? Can't our station help with drugs?"

"The majority don't respond to treatment. We help the Leonian doctors, but terrestrial medicines were intended to combat disease, not degeneration."

One of the patients approached the visitors. He seemed completely normal except that his wings were shining more brightly than those of the other patients and the "indistinguishables", who were standing together in a compact group some distance away. Roy admired the powerful radiance of the newcomer.

His intelligent, protuberant eyes were fixed on the minister and his assistants.

"Yazz, you were my friend!" said the Leonian in a ringing voice. "Remember, Yazz, you were my friend! And you prom-

ised to start treatment with simba sediments!"

"III, you are conducting yourself in a non-standard manner!" intervened Arr. "Return to your place, III!"

The duty officer waved his wing at III. The latter stood there without taking his eyes off the minister's assitant's bowed head. Yazz shuddered and his glow faded. Without Kwama having to explain, Roy guessed that the loss of radiance signified embarrassment. This was borne out by Yazz's reply.

"You exceeded the plus tolerance, III... *You have gone too far beyond the norm.* I can't help you!"

Without another word, III hurried off into the twilight, Roy watched him until he was lost in the distance, then turned to Yazz.

"What is the meaning of III's complaint, friend Yazz? What is his illness or offence?"

Instead of Yazz, who had lost his voice, Roy was answered importantly by Izz.

"You saw before you, Roy, our former doctor, poor III. He used to treat wing and leg fractures. He discovered that simba sediment helps the bones to knit. That is his only fault."

"Is it wrong to discover a good medicine?"

"Simba is forbidden amongst us. True, *the ban has nothing to do with simba sediment.* But the sediment not only helps bones to knit, it increases our luminescence. You saw this on III. He has been trying out the drug on himself. We cannot allow such an increase in luminescence."

"What harm would it do if it were increased?"

"It would be an innovation. Innovations are banned. We only tolerated Ill's experiments while he remained within the limits of plus tolerance. We loved him very much. He is good. But after the last recount, he exceeded his tolerance owing to excessive luminescence and had to be sent to hospital. When he grows dimmer, he will be discharged. Ozz, my assistant for the restoration of the norm, is trying to do his best for him, but the results have not been good so far."

"D'you understand now, Roy?" queried the sociologist glumly as they walked towards the exit.

"Yes, I think I do," replied Roy.

"I'm not asking too much of you, am I?"

"On the contrary, you're asking for less than I would like to achieve."

"Drastic measures are hazardous," said the sociologist sadly. "We thought about this at the station. A mentality must be changed little by little."

The four "indistinguishables" were moving along another tunnel which led outside round the prophylactic centre. As before, they were hurrying on ahead, stopping, waiting for the human beings and then scurrying off again. Izz was leading the way and his assistants raced after him in single file. Roy had the impression that Yazz was dead tired. The Assistant for the Intercepting of Hyper- and Sub-Normalities was stumbling and simply could not recover his former

radiance. Roy felt sorry for him and for the luckless III who had reacted in proud silence to his former friend's discouraging reply, and for the two assistants, silently catching up with their leader, and even for the leader himself, the complacent and kindly Izz—for all whom Roy had come to know and all whom he had not yet seen on Leonia, but who were slowly going to pieces on this strange planet. Roy now understood Kron Kwama. This was probably how Kron had come to love the inhabitants of Leonia—out of intense pity.

## 4

An impressive structure with twelve signal windows had been erected in the lounge. The station's technicians had been working really hard. Even on Earth, any inspectors would have passed this machine, a special analyser for the expedition's Small Universal Machine, SUM.

Kwama was so excited that the dark skin of his face turned grey.

"Are you sure, friend Roy?" he asked for the hundredth time.

"Absolutely," said Roy with a smile. "The machine is reliable and fully up to standard. Only I don't know whether we'll be able to prove to the Leonians the advantages of your algorithm for calculating averageness, especially when you're in such a state of excitement..."

"I'll appeal to their logic, it's the only way," muttered the sociologist. "Look, they're airborne already!"

Without troubling to wander round the station corridors, the four "indistinguishables" had flown straight in through the open lounge window.

They settied themselves on the floor in the usual order: Minister Izz in front, Ozz and Uzz on either side at some distance, and Yazz behind them.

"We have conveyed your suggestion to the inhabitants," announced Izz ceremoniously. "We all like it. We like the idea of simplifying the calculation of averageness. At present, too much time is spent between the two calculations, since we have to obtain information from a hundred and four parameters... If uninterrupted analysis is achieved, we shall become reconciled to the fact that we are introducing a novelty. A novelty that strengthens our traditions can be seen as a continuation of traditions. And if the machine itself is also a novelty, it must obey the principle of no novelties! Such is our main demand. On this matter we await further clarification."

The sociologist went up to the machine.

"Further clarification won't take long. The six light windows on the right side indicate the six gradations of plus tolerance, the six windows on the left show six minus tolerance."

"Very good!" said Izz approvingly. "But you haven't answered the question about

obeying the basic principle, friend Kwama."

"It is being fulfilled completely. No novelties is the criterion according to which the machine works. And I venture to assure you, friends, that it is observed much more strictly by the machine than in your regular practice."

"Magnificent!" Izz waved his forelegs and moved his folded wings in an expression of extreme joy.

The assistants on either side also moved their wings expressing their delight. Only Yazz, who was behind them, silent and unmoving, did not express satisfaction.

He was too near the sixth upper stage of tolerance to rejoice.

"You enter data about each Leonian into the machine," continued the sociologist. "And not only about the existing generation, but also all available data about previous ones. The machine will give out the average image of the Leonian. It excludes from its calculations only those who deviate sharply from the norm and have no analogues in previous generations."

"Excludes someone from the calculations?" Izz looked doubtfully at his assistants. "We've never done that before."

"No, we haven't!" confirmed Ozz and Uzz in unison.

Yazz was silent.

"And by not doing so, you entered into a contradiction with the principle of no novelties!" rejoined the sociologist coldly. "For if an individual occurs who departs from the tolerance limits but repeats someone who

already existed, then you have a violation of the norm, but there's still no novelty. But if he falls outside the norm, repeating no one, he constitutes a novelty. However, if you wish to depart from your basic principle..."

"Never!" declared Izz hastily.

"Then take the machine, enter the formula of the basic principle into it and store its memory with data about all previous generations. The machine will steadily issue a calculation of the norm and deviations from it for every inhabitant on Leonia."

"Excellent!" The minister rose and straightened his wings. "Have the machine delivered to the government cave, friend Kwama."

He was the first to fly out of the window, his three assistants sailing behind him.

When the machine was taken away, Kwama lowered himself wearily on to the settee. Roy sat opposite him.

"I did everything you asked," said Roy. "But are you sure there'll be an improvement in this species or, at least, that the degeneration will stop?"

"Absolutely certain!" The sociologist jumped up and began pacing excitedly about the lounge. "You saw the Leonians in the hospital. The machine will exclude them from its calculations, since they are victims of mutations which did not occur before."

"The machine will cut out not only deformities, but perfections too."

"There are far more deformities than perfections on Leonia. And take another point into consideration, Roy: excellences

continue our natural abilities, merits only strengthen and harmonise us without entering into contradiction with nature. But deformities refute nature! They are indeed novelties, baleful novelties. They say there is one truth but there are a million deviations from it. To some extent, that goes for perfections and deformities alike."

"I must hope that you're not mistaken. And so my mission is fulfilled and I'm flying out tomorrow. I'm curious about one more thing, Kwama. When did you come to the conclusion that only a machine could help you?"

"The thought of such a machine occurred to me when I was visiting the hospital. The paradoxes of Leonia are particularly conspicuous there. I've already told you that the Leonians are gentle, responsive, friendly, honest and intelligent in their way. But this stupid conception of the obligatory averageness led them to dissension and hostility. You see, all who are below standard crave the lowering of their neighbours, for then they are not threatened with excessive deviation from the norm. Each successful cure worsens the chances for the rest, for the cured one increases the norm. Discharge from hospital is dictated by statistics, not by the doctors, and don't forget that. But now, I've no doubt, everything's going to be different!"

"The situation on Leonia makes me hanker after one thing," said Roy pensively. "The deformity filter will give results, but it's far

from perfect. It would be a good idea to build a machine that automatically regulates the level of social and personal prosperity for any society and outputs programs for its improvement. Such instruments were built on Earth ages ago, but they are only of use to human beings. What's needed is to rebuild one of these machines to be helpful to all forms of rational being."

"Send your trial model to Leonia. It's sure to be needed here."

"Will you still be on Leonia?" asked Roy, smiling. "As the most eminent specialist on the improvement of undeveloped civilisations, you will be transferred to some other planet."

"Why don't you believe me, Roy?" asked Kwama reproachfully. "I shall always carry out any assignment to aid a distressed civilisation, wherever it may be. But I'm not held up here purely by rational considerations. I think there's enough happy work for me on Leonia to last me the rest of my life."

## 5

Roy was getting into the aircab for the flight to the cosmodrome when up flew an extremely distraught Izz. He was without his assistants this time.

"I protest, friend Kwama!" he twanged on his highest note. "An outrageous novelty has been brought about! I demand its immediate cessation!"

Kwama looked at him coldly. Izz nervously shifted all his six feet and moved his wings aimlessly.

"Friend Izz, you have a special assistant for the interception of abnormalities!"

"I summoned my assistants but they were delayed. They are helpless. Your urgent intervention is vital."

"Tell me in what I must intervene."

From the minister's agitated speech it transpired that the machine was turning out a new level of averageness and that the minister was being downgraded from absolute averageness to a minus tolerance and was now on the dangerous borderline of a one thousandth deviation. The most perfect of the absolutely average, he had been demoted to the minus grade. How can he put up with that? How can he reconcile himself with such a thing?

The minister's assistants appeared in the distance and flew up in haste. Izz turned to them in a fury.

"You are impermissibly overdue! Have any mistakes been found in the calculations?"

"The calculation has been confirmed," answered Uzz, Assistant for Statistics, politely bowing his head. "Ozz and I have also been downgraded from plus to minus. True, our deviations aren't as big as yours, Izz."

"You heard that, humans?" shouted Izz. "Your machine isn't working properly. Change its algorithm at once. I demand this not only as an unjustly insulted Leonian, but as a minister invested with high powers..."

Yazz came forward and interrupted the infuriated Izz.

"You're not a minister any more, Izz. You've departed too far from the norm. I'm the minister now, for I have become perfectly average. You are my assistant, with Uzz and Ozz. The machine presented to us by the human beings is functioning correctly. The people of Leonia have no cause to demand changes of its algorithm."

The ex-minister looked so distraught that Roy had difficulty in not laughing.

Yazz turned to him.

"I hasten to delight you, friend Kwama. According to the new calculations, Doctor Ill is now within acceptable limits of tolerance. He has been discharged from hospital. The use of simba sediments has also become acceptable. Ill is urgently preparing a machine for the treatment of the disabled. He promises to restore half the patients to a normal life! I shall willingly set my people an example and take simba sediment without fear."

"And you will all shine more brightly from now on," said the sociologist happily. "In your dark interiors, extra light is simply vital!"

Roy got into the aircab and waved to the four Leonians and Kwama. They waved him in reply. Reconciled to his fate, Izz also gave a friendly flutter of the wings.

# THE HAPPINESS MACHINE

## 1

After the investigation into Fred Redlikh's tragic death, Henry began to complain that he and Roy were being turned from physicists into space detectives. Roy tried to refute his brother. He tried to prove by reasoning that detectives look for criminals who have committed murders or other major violations of human laws, but the two of them were investigating baffling phenomena in space and society that were a threat to humankind.

Roy's arguments did not convince Henry, they merely irritated him. Henry could turn a deaf ear to any rational deduction if, in Roy's words, "it did not fit in with his mood". The conversations would end with Henry shouting at his brother, or stamping out of the lab, or—and to Roy this seemed the worst of all—collapsing into an armchair and not answering for hours on end.

Roy lost patience.

"What d'you want?" he asked. "Explain what you want clearly."

Henry was unable to explain himself. There was something he didn't like about their new specialisation, but he wasn't capable of formulating it precisely. He was feeling bad about it. And he knew that it was not right for a physicist to bend over a corpse, look for traces of violence on the body and then trot off along the trail while it was

still hot. He didn't care who had left the trail—two-legged evildoer or a hitherto unknown phenomenon.

For other people, work was work, discoveries and finds were made on benches with instruments, not on operating tables and in morgues. He wanted to make calculations, not rummage around in investigators' reports. He was fed up with mangled bodies which served as the basis for theoretical investigation. From now on he would stick to matrices and integrals and would busy himself with formulas and calculations, and everything that had no relation to the writing-desk or laboratory bench could quietly go to hell.

Roy had the ability to give a precise formulation to Henry's vague feelings.

"I understand," he said calmly. "You want to develop an instrument which would automatically hunt down criminals and would disclose unknown dangers."

Henry, who had been sprawling in his armchair, nearly jumped up in astonishment.

"You know, Roy, you've got *something* there," he said.

"Of course," confirmed his brother. "It's your idea after all, and you're incapable of making a fool of yourself."

Roy liked to portray their relationship in the following way: everything important in their work was thought up by Henry, and he only helped to put his brother's brilliant ideas into practice.

Henry began walking quickly round the

room. He had to relieve his mental turbulence through physical movement. A new research project was brewing in his mind.

"That's just it," he muttered joyfully. "Perfectly correct! To seize the crook by the collar not with the hand, but with the help of electronic instruments. To expose to danger a model instead of the living being. To model danger. To create an electronic scheme of criminal activity. But how? That's the vital question. How?"

A minute later, Henry halted in front of his brother, who was calmly watching him as he darted about the room, and announced that he had worked it all out. A means had been discovered long ago for measuring the level of social happiness. Crime or misfortune lowered that level. All they need do was to seek cases of a fall in social well-being, all the tiny dips and hollows on the smooth curve, and determine who and what had caused them. The causes of such falls would be a crime or unforeseen calamity. The instrument itself would locate any falls that had occurred, would reveal the causes and would indicate who the criminal was or what the unknown danger happened to be.

"Excellent," approved Roy. "I suggest calling our new apparatus a criminal investigation instrument."

"Agreed!" Henry had no objections to criminology when it was transformed into an electronic process.

The brothers worked enthusiastically on the project for two months. When tested,

it gave good results; they traced standard induction coils, lost for many years, of quiet joy, mental contentment and a sense of physical well-being. The disappearance of the standards had caused much uproar at the time. They had been made for the colony inhabiting Planet Sigma-3, from where queries and complaints had been coming for some time about the non-fulfillment of an order. The Institute of Space Problems had been obliged to reproduce the unique coils in record time. The originals were inside a dog kennel in a garden. The investigation instrument pinpointed the culprit, a cheerful sheepdog named Prima. The animal had evidently got into the lab through an open window and had taken such a liking to the elegant coils that it had carried them back to its kennel.

Entertaining rather than serious—the coils had been well and truly gnawed and were no longer serviceable—the search for the standards indicated that the instrument was reliable. Henry, however, was annoyed that they had not been able to test it on a major case. He calmed down a little when the brothers were informed that the instrument was required for a control test at the Directorate on Social Welfare. Roy, however, became extremely nervous, which was unusual with him. All trials in the Directorate of Social Welfare took place before members of the Big Council. This meant that failure would be a disaster. On the other hand, success would mean a triumph.

## 2

The brothers brought the instrument to the directorate and set it up in the operations room.

This was one of the few places where the traditions of the past were observed down to the last detail. Everything there was impressively old-fashioned—the luminous walls, the stereoscreens for communications with cities on the other planets of the solar system, and the antediluvian plastic settees.

The impulsive Henry, forgetting that there were no force-field chairs to appear the moment they were needed, immediately sat down with a bump on the floor. He grumbled that he couldn't understand how his ancestors had lived; they were evidently the slaves of material objects and couldn't even sit down, let alone lie down, if they didn't have special seating appliances within reach.

Exactly at the appointed time, the control commission appeared—nearly all were members of the Big Council. They were headed by Albert Boyachek. Roy felt slightly relieved. The President of the Academy of Sciences was favourably disposed towards the brothers. It might even be said that Henry was a favourite of his.

"Let's begin, friends!" said Boyachek.

There were five panels altogether. They stood in a semi-circle round the central panel, itself an ancient device. The first panel showed the level of public health, the second indicated the current level of social happiness,

the third showed the development of human well-being from the year of Earth's unification, and the fourth summed up the position on the other planets settled by human beings and their friends from other star systems. This panel was comparatively new, and the indicators on it could have been depicted by less obsolete appliances than autowriters and automatic integrators, but here, too, the Big Council did not want to break with tradition.

On the fifth panel shone the screen of the social psi-field. This registered the total creative potential of society and had been developed by Boyachek himself. Henry was going to go up to this panel, but Boyachek pointed to the second and third.

The investigation instrument was plugged into the third panel.

"We are primarily interested in what is preventing a rise in social well-being," said the president. "The rise and fall of the creative spirit are such complex phenomena that for the time being there is no point in subjecting them to investigation by machine."

The investigation instrument behaved excellently at the third panel. It was given a historical task, the whole of Ancient Roman history. The instrument enumerated with great accuracy the causes that had obstructed the increase of social well-being during those years: the low economic efficiency of the slave-owning system, the wars Rome waged with its neighbours, the struggle for power at the top, religious superstitions,

bad harvests, diseases and natural catastrophes... The members of the commission merely nodded their heads when the investigation instrument printed out on tape its commentaries on every year of Roman history.

Boyachek signalled for the instrument to be moved to the second panel. Roy sighed. The registers of available social happiness indicated such an even level that there was nothing for the instrument's search beams to pick out. It had certainly not been designed for such eventualities. It had been programmed to investigate untoward events, violations of and lapses from the norm, which was why the brothers had called it an investigation and not an evaluation instrument. Roy was glumly expecting a failure.

Surprisingly, Boyachek remained satisfied even with the unconvincing explanations with which the instrument accompanied the curve of current social happiness.

"A magnificent device!" said Boyachek sincerely to the brothers.

The other members of the commission joined in the president's congratulations.

"May it be considered that the investigation instrument has passed its exam?" inquired Roy cautiously.

"It may," replied Boyachek. "In connection with this, let us talk about the practical application of your apparatus. You call it an investigative instrument and you intend it for disclosing crimes, is that not so?"

"And phenomena violating social and

personal well-being," added Roy hastily. He did not like the note of doubt suddenly discernible in the president's question.

"The second is preferable," said Boyachek. "The fact is that no crimes have been committed in our society for some time. We should like to suggest another approach. We want you to work on the converse problem: seeking out possibilities for the increase of happiness. Is it feasible?"

Roy looked at Henry. Henry shrugged his shoulders in silence.

"No problem," said Roy confidently.

"Then we give your apparatus the official name of The Happiness Machine. Please get down to the practical work rightaway. Your assignment will be as follows. The social laws have been violated on planet Delta-2 in the Capella system. We are alarmed because the level of happiness has not risen for two generations in the human colony on that planet. The rise in welfare and spiritual contentment is evoked there exclusively by a flow of migrants and postings from Earth. While the aborigines themselves have not developed beyond a certain level."

"And what level is that?" inquired Roy curiously. "Hasn't it reached its maximum?"

"There is no limit to happiness," interrupted Boyachek, "as there is none to grief. The ways of improvement are infinite, like the roads of degeneration. The only difference is that in a progressive society, it is happiness that is on the increase and in a dying society, it's grief. Tomorrow, on a special starship,

you and your apparatus will be sent to Delta-2 to restore a healthy atmosphere for happiness' growth there. I wish you success."

When the brothers returned to their institute, Henry paced about the lab for some time. Roy was silent.

"What are they turning us into?" said Henry, stopping in front of his brother. "What road have we started out on today?"

"The roads of invention are wrapped in mystery," said Roy pensively. "Let's take a few steps along that road too."

## 3

"Some planet, I must say!" grumbled Roy. "I never even suspected there were people so all-embracingly intoxicated with their own importance."

"Stop moaning," requested Henry wearily. "What a nasty way of saying nothing but bad all the time! I refuse to recognise this Pierre Neville as an ordinary human being. That's the second time the machine has promoted him to the rank of Olympian."

"Since he isn't encoded, check if he hasn't got angels' wings on his back," advised Roy. "That'll be better than overloading the machine with tasks beyond its powers."

"Spiritual virtues," muttered Henry in despair, "that blow fuses and puncture capacitors! What does he want to raise his happiness level any higher for?"

He jumped down and went outside. The little house of the Guardian of the Mists, set aside for the work of the Happiness Machine, was situated on a hilltop. It commanded a magnificent view of the city and the valley. Fountains of mist spurted up out of the stony soil. The gold rooftops of the city glittered below. Henry sat down on a rock. Everything was going wrong, he must calm himself. Working next to Roy, who was stubbornly trying to achieve the impossible, Henry was getting irritated. Only a substantial dose of mist could restore his lost clarity of mind. "It didn't take long to get hooked on that stuff," thought Henry joylessly.

He looked up. Two stars were sailing across the blue-and-violet sky: Capella-A was like the Sun, Capella-B, of the same orange and yellow hue, was slightly smaller. Henry unbuttoned his shirt. Delta-2 was some four times further away from these binary stars than the Earth from the Sun, but it was scorching hot even at the pole there.

"I'm going," said Henry aloud and hastily, to stop himself changing his mind, slithered down the steep hillside. The first geyser of fragrant coloured mist soon shot up near him. With each step, the clouds grew in number, becoming steadily brighter and more fragrant. Henry's head was spinning. It was always like this when he began to inhale the amazing air that came bursting out of the planet's bowels.

Henry stood for a while near one of the

geysers. His head slowly cleared, his good mood gradually returned and his body felt lighter. In five minutes, he would want to sing and dance, he thought to himself, defining his own state of mind with amusement.

"Greetings, friend!" It was the voice of the Guardian of the Mists coming out of the coloured twilight.

Henry stepped forward to meet him, taking care to avoid the baby geysers—one false step could totally ruin those weak little creatures.

The Guardian of the Mists was a tall young man, restrained and somewhat aloof. He talked without looking at the other person and often answered off the point; his eyes were constantly surveying the surroundings, as if he were looking for baby geysers in need of first aid. He was carrying a small electric spade in one hand, holding it blade-forward like a weapon.

"Don't gulp too much down, our mists can be harmful to Earthlings," said the Guardian of the Mists with a glance at Henry.

"I'll get by," replied Henry. "I'm fit."

The Guardian of the Mists walked on without waiting to hear the rest. Henry followed him.

Bent over, the Guardian seemed to be either peering at or listening to something on the soil. The spot was nothing special—just rocks thickly veined with gold; it was the usual terrain here. Henry would have walked past it without taking any notice. The Guardian cautiously touched the soil

with the blade of his spade and began slowly swinging it sideways. The spade was vibrating, and the vibrations were rising and falling by turns. At the point where they seemed to be at their peak, the Guardian drove the spade into the soil. The blade jumped and juddered; fragments of rock and grains of gold flew into the air. Henry shielded his face with his hand to prevent a stray speck of gold flying into his eyes. The soil quickly crumbled, the Guardian turned the spade into a scoop by pushing a button and began removing the soil. Soon a crater formed about half a metre deep and half a metre across. With a second push of the button, the Guardian turned the scoop into a broom and swept the bottom and sides of the crater.

"It'll be born soon," he predicted.

The newborn geyser announced its coming into the world with a thin whistle, and then a tongue of dark blue flame broke through. The flame flickered upwards, grew, turned from dark blue to green and orange and lost its garish brightness—a plume of mist wavered over the heads of the two men and its edges blurred. Henry stepped forward and eagerly opened his mouth over the baby geyser at the point where the flame was still a flame and not a mist lacking all colour and shape.

But here, too, at the focus of the glitter and flames, it was air and nothing but air; true, it was fragrant and light, and seemed to make a sweet sound as it filled the lungs. Henry knew that the simile was too high-flown, but it was the only appropriate one.

"Don't swallow too much!" repeated the Guardian. "It's bad to take in too much mist."

"A grand little fountain!" said Henry approvingly. "Are these little ones born here often?"

"Five or six every twenty-four hours. As many of the old ones dry up. The citizens don't complain of bad air."

"I don't see any of them here at all."

"What the wind carries their way is enough for them. However, friend, let's go."

The Guardian walked in front, carefully picking his way in and out among the geysers. Henry dutifully followed in his footsteps.

It had not been easy to adapt to the conditions of this strange planet. The two almost identical suns in the violet sky were weird, as were the bowels of the stony globe that generated nutritive air. Only once in two days did they need to add food to the calories and vitamins already introduced into the body by the process of breathing, and even that was more than sufficient. Henry would go without food for a week at a time; he grumbled that Roy was a glutton when, out of habit rather than necessity, he opened the canned foods. But weirdest of all were the Deltans themselves, tall, slow-moving and mentally balanced.

"Tell me, friend, don't you want anything?" asked Henry when they had climbed above the clouds of coloured mist. "I mean great aspirations and goals, not just the desire to do your daily work as well as possible."

"No, nothing," replied the Guardian after a moment's reflection.

No one here answered without thinking first, even if asked what the weather was like outside or whether it was day or night. Roy maintained that local conversations were three parts mutual silence and only one part words.

"Does this mean you're completely happy?" asked Henry, following the same line of investigation. "D'you understand me, friend? Absolutely happy?"

The Guardian looked at him in astonishment.

"Happy, of course... I'm not sure that I know what sort of a thing absolute happiness might be."

Henry turned away with a sigh. The two suns were shining hotly over the gold rooftops of the city and the coloured plumes of mist were billowing up in the valley.

"I'm going, friend," said the Guardian. "There's a starship coming in from Earth this evening, I have to get ready."

"What's it to you? The gold's loaded into the holds by automatons."

The Guardian reflected for over a minute.

"I have to see the crew to the Valley of Mists. Earthlings love to take the air where it originates."

Henry stood for a while in front of the house, then tore the door open. He hadn't calmed down, although he had inhaled more than enough of the mist. "I'm going to have a row with Roy," thought Henry. "I'm de-

finitely going to have a row with him. He's an amazing fellow, Roy! He's bound to pick on something, and I won't be able to stand it, I certainly won't, and that's a fact!"

Roy was pacing thoughtfully about the room.

"I've got there," he said. "The only chance of improvement is hidden in that thrice-damned and irreproachable Pierre. Now we're going to throw all these local angels without wings up to the mountain peaks of happiness... Why d'you stand there saying nothing like a statue?"

"We're sure to have a quarrel," thought Henry, "we just can't help having a quarrel."

But aloud he said:

"I'm thinking. So you've hit on something, then?"

Roy looked for a long time at Henry. "He doesn't want to have a row," thought Henry. "What a man—he doesn't want to quarrel on any account!"

"All right," said Roy. "You're looking for a row, I can see that. So here's one condition: no quarrels, even if you don't like my estimates. Though I hope you wouldn't be such a fool as to try and refute a mathematical proof."

## 4

As was his habit, Roy began at the beginning. He simply could not help being thorough. It was now the second month, by the

local count of terrestrial half-years, that they had been hanging about on Delta-2. During the first week they had familiarised themselves with the life of the Deltans, had helped load the gold mined there on to a starship and had been amazed that so much gold was needed when they had enough of their own on Earth.

"We were amazed," confirmed Henry. "I don't understand what you're driving at."

"You promised to control yourself," reminded Roy.

For two weeks, they had been adjusting the Happiness Machine and testing it at idle. Only then did they begin to feed the receiving apparatus with the characteristics of Deltans, obtained from the local Small Universal Machine.

These people were unfortunate material for the machines: happiness was at such a high energy level that there weren't enough capacitors and resistors to code it into physical magnitudes. Apparently, the basic law of social development, so precisely formulated by Boyachek, i.e., that the roads to improvement were limitless and a higher limit of happiness did not exist, was not in force on Delta. A supreme limit of happiness existed on Delta and it had already been reached; the ways to improvement were closed. That was how it seemed to them in their dismay when they worked with Pierre Neville. Pierre was not only the last subject of research, but the most difficult. This strange man did not yield to digital codifying; all his

virtues were only in the superlative degree. But after his characteristics had been processed, it emerged that he alone among the Deltans could quickly raise his happiness level, although he did not even suspect it.

"Cut it short, Roy. What do you suggest?" Henry couldn't take any more.

"To cut it short, Pierre must meet Stella."

Henry stared at Roy in amazement.

"Stella? What might that be?"

"A Deltan. Twenty-three years of age, height about six feet, hair matching colour of eyes, changes colour of eyes once in three months, at present they're apple-green. Lives in the Southern Hemisphere, an operator at South Mine Number 2, is keen on tennis, adores olives—they're brought from Earth, as you know, they haven't taken root here—is an excellent mountain climber... What else? Dances well. To sum up, one of the three thousand eight hundred and forty female Deltans who are not Pierre's wives."

"Naturally, for his wife is a certain beautiful sorceress named Mira, which means 'wonderful'. Is that what you wanted to say?"

"No, something else. If Stella becomes Pierre's wife instead of Mira, not only will Pierre's personal happiness be given a boost—after all you and I are not here to arrange happy alliances—but the general level of Deltan social happiness will rise, and this hasn't happened here for approximately one and a half centuries."

"You undertake to prove it?"

"I've already done so."

Roy switched on the Happiness Machine and two curves lit up on its screen: an orange one, the curve of general happiness on Delta-2, and above it a green one which was Pierre's personal curve. The orange one ran parallel to the abscissa; this was the graph of monotonous repetition: the happiness level neither rose nor fell, one day was as good as the day before and a hundred years before that, not an iota worse, but not an iota better either. Pierre's curve of individual happiness also ran parallel to the abscissa and also reproduced itself monotonously from day to day, but its level was so high, it went so near to the upper edge of the screen, that the impression was staggering. Henry felt bewildered. Roy joked that to raise the personal happiness of this unimaginably happy man was impossible—not only morally, but physically as well.

"Wait!" said Roy imperturbably. "Look what happens when I program a meeting between Pierre and Stella."

He deftly entered a program for a meeting between Pierre and the girl from the Southern Hemisphere who had apple-green eyes and hair of the same tint. What happened next made Henry jump to his feet. The green and the orange curves were both pulled together by a kind of spasm. Their ends danced and bent upwards; a profound shock disrupted the staid life of Deltan society: Pierre's curve flew down from the heights of achieved hap-

piness to the depths of grief and despair; the orange social curve also suffered a fall, but not so violent.

"Don't say anything!" shouted Roy. "Keep quiet and watch!"

Henry slowly lowered himself into his armchair. After a brief fall, both curves strained upwards. If Pierre's curve had been at an amazing level, its present growth was staggering. His curve of happiness shot up beyond the limits of the screen. Roy changed the coordinates' grid, but even on the new scale, now half its former size, Pierre's happiness was mounting wildly, was shooting uncontrollably upwards. Even before, with Mira, this amazing man had been happier than anyone else; but now, with Stella, he was immeasurably, incredibly, inhumanly blissful.

What really made Henry keep quiet was the path of the social curve. It was also straining upwards, lagging behind Pierre's curve, with a shallower gradient, two halts and several tiny lapses, but, in general, towards a new and much higher level! Only on reaching it did the curve of social happiness even out, and run smoothly not discarding off the degree of social contentment achieved.

"Henry, you haven't swallowed your tongue, have you?" inquired Roy with amusement.

"It's all clear," began Henry delightedly. "This Pierre meets Stella and falls madly in love with her. At first he suffers from having

to abandon his first wife, Mira, whom he hates..."

"A dreadfully quarrelsome woman, by the way. A hag, as you rightly noted!"

"...for the sake of his beloved Stella. Pierre's vacillations and torments naturally lower the level of social contentment, and, moreover, the Deltan colony is embarrassed by Pierre's unethical—as it must have seemed to them at first—conduct, and this gives the curve those zigzags and downward plunges. Then Pierre calms down and his happiness begins to grow spectacularly, Deltan society also quietens down, and to this ordinary contentment is added Pierre's new state of bliss. In keeping with the growth of Pierre's personal happiness, the sum total of social happiness also rises. That's how I picture it at first sight."

"You didn't mention the most important point of all, Henry."

"True. The most important point is that the upsurge of social happiness considerably exceeds that contributed by Pierre's personal bliss. The union of Pierre and Stella is useful to society in that it revolutionises the Deltan established mode of life. What's at the bottom of this, in your opinion?"

"I can only guess. Perhaps they will have a child who will turn everything upside down with an invention, or Pierre and Stella will create something useful..."

"Tell me, was the Pierre-Stella combination thought up by the machine?"

"You don't think it was by me, do you?

When I finished with Pierre's characteristics, I set another program for improvement which had so far not worked with any of the other Deltans, and then the machine picked out Stella."

"All we have to do is follow the machine's recommendation."

"We'll do so. We'll send for Pierre and Stella under any possible pretext and fix up a meeting here, and we'll get the machine to give off waves that will generate a mutual attraction in the two of them. Simple, isn't it?"

"A simplicity that is worse than robbery, Roy."

"Have you worked out a better project?"

"I haven't worked out any projects at all. We should look at Pierre and Stella separately before we generate a mutual attraction between them."

"I can feel an inexplicable chill coming from you," Roy declared. "Don't argue, I can see right through you. You'll go to Stella and Pierre. Incidentally, the machine pointed out one danger. Stella is being wooed by a fine young man, also of the Southern Deltans. If we don't introduce Stella and Pierre in the next few days, she'll marry the boy and the radical improvement of the Deltans' level of happiness won't be brought about. I've tried to interfere by putting an energy block on the young man, but he is getting his way too fast. We must, and in good time, create a mutual unconscious yearning for one another between Pierre and

Stella." Roy handed Henry a pocket transmitter. "If you take a liking to Pierre and Stella, signal for the machine to be switched on. Meanwhile, I'll tune it, and then the most marvellous young men in the Southern Hemisphere won't be able to stop them falling in love with each other."

## 5

Mira justified her name; she was admirable.

Among the slow, solid Delta women, this graceful, swift-moving girl seemed sprung from alien stock. She was reminiscent, in a way, of the ancient terrestrial gypsies as recorded on the stereotapes. No doubt she danced wildly and may have been able to sing too, thought Henry as he introduced himself to Mira. Casually, half-leaning backwards, she was seated on an almost invisible force-field armchair in a room that was empty in the latest terrestrial fashion.

"So you want to see my husband?" asked Mira, inviting her visitor to sit down.

Earth-style interior force-fields had already been introduced on Delta-2: Henry sat down confidently, knowing that a comfortable armchair would immediately shape itself to his body. He put his elbows on the transparent rainbow arm-rests and half-covered his eyes. Mira had a keen look; she stared too hard. An unpleasant face, thought

Henry; beautiful, but unpleasant. Aloud, he said:

"Yes. A few terrestrial matters. Export problems."

"I don't like Pierre being snatched away, even on business. I make no exceptions for export matters."

Henry smiled condescendingly.

"As far as I know, friend Mira, Earth has given no undertaking to do exclusively what you happen to like."

Mira rose abruptly and went over to the window. Henry looked calmly at the place where the silhouette of the force-field armchair had recently shown through. He could hear the rustling of a long gown behind him. Mira was dressed with a fastidiousness long forgotten on Earth; it was the only unfashionable thing about her. A woman who sacrificed fashion for beauty was unusual in that alone. The dress rustled now on the left, now on the right. Mira, like a captive tigress, was pacing up and down behind Henry. He calmly stayed in his armchair, covering his eyes again. He would not even think of following every movement made by this crazy woman.

The silence was broken by Mira's sharp voice.

"I do not wish you to meet Pierre. Kindly leave."

Henry slowly rose to his feet. The armchair vanished as soon as he detached himself from it. The interior force-field on Delta was working faultlessly.

"You can ask me to leave, but it is beyond your powers to prevent me from seeing Pierre. We shall meet tomorrow on the cosmodrome, if a meeting in your house is out of the question."

Mira was having difficulty controlling herself. Bewilderment and a pleading look were evident in her black eyes.

"Why Pierre? He has nothing to do with gold exports. His field is loading non-metallic minerals."

"It's the non-metallic minerals I'm interested in. Gold roofs have been out of fashion for ages on Earth and the other planets. Only you people here are still keen on those architectural excesses."

Mira gestured, and an armchair appeared in the room.

"Take a seat. It would be better if Pierre and you met in my presence. I can't bear it when he does something without me!"

Henry sat down and looked morosely at Mira. She was very attractive. Henry *had not* even suspected that such alert and appealing eyes could suddenly become so big. There was something oppressive about this woman's beauty.

"It seems to me, friend Mira, you're wrong about this too. I intend to meet Pierre in your flat, but certainly not with you present."

"Why are you being so unpleasant to me, friend Henry? This is the first time I've ever met you, but I know you're up to something."

"You don't know anything! You have a nasty disposition, Mira. On Earth, as it

happens, the duties of wives and nannies are distinguished from one another. Doesn't it seem to you that the same distinction is not observed on Delta?"

The woman thought so intently over Henry's words that he felt sorry for her. Presentiment of danger was extremely well developed in her. Altogether, this Mira was a surprise factor. The Happiness Machine and the two brothers were concentrating on Pierre and Stella, but Mira had been left out of it. "It won't be pleasant for her," thought Henry. "Those downward plunges of the social happiness curve must have been evoked by her reaction to the loss of her husband. A good thing that those lapses were tiny, only personal grief."

"I don't know," said Mira very slowly, "what you mean when you talk about wives and nannies. I may be a bad wife from Earth's point of view and a worse nannie, but I dare to hope that Pierre is content with me..."

"Don't tell lies!" came a loud male voice.

Into the room rolled a cheerful, red-faced little man, so rotund, short-legged and short-armed that he looked like a sphere. Innocent of eyebrows, almost bald, a head lower than Mira, and, moreover, with his misshapenly unsymmetrical face, he was strikingly different from his beautiful wife.

"What an ugly word is 'content'! I am not content, I am rapt, enchanted, bewitched!"

Mira flushed, then turned pale.

"You're forty-seven minutes late," she said. Her voice was trembling. "You're all of forty-seven minutes late, Pierre!"

"I'm forty-seven minutes late!" intoned the man in a falsetto. He gripped his wife by the hand and whirled her round the room. "I'm forty-seven minutes late!" He released her hand and began dancing round her.

"You could have warned me, Pierre. You know my personal receiver is only tuned to your waves." She spun round with pleasure, sometimes overtaking her husband, and then he would stamp his feet comically as he overtook her.

He danced round his wife in a big circle. "I was loading, I was unloading, I was fitting up automatic machines. I didn't radiate anything!" he sang. Suddenly, his face turned from cheerful to worried. "Wait!" he said, stopping. "Have you had no dinner again?" He frowned. "How many times have I told you you mustn't wait if I'm late for dinner!" He cheered up again, started spinning round and began singing, his head thrown back. "Don't wait till I arrive for dinner! Don't wait till I arrive!"

"Stop it!" said his wife. "You have no voice and no ear for music, Pierre. I can't stand your singing any more. You'd do better to dance. Only please don't fall over."

"I can't bear listening to your singing!" he sang loudly and began dancing round the room even more vigorously. "I can't bear listening to your singing!" he warbled joy-

ously. And with each turn round his wife, his glance fell on Henry.

Henry knew that Pierre could not see him. At first, Henry was afraid that in the course of his ecstatic whirling, Pierre would fly into the armchair standing in the middle of the room, but Mira circumspectly kept as far away from the visitor as possible, and Pierre, although he did not even know that there was a third person in the room, was physically aware of an unknown obstacle.

"Dinner!" shouted Pierre, stopping. "A good doze of nutritive mist. You, and I and the mist! Look lively, Mira, look lively!"

"We're not alone," said Mira. "We have a visitor from Earth."

Only then did Pierre notice Henry.

"Excuse my inattention!" said he awkwardly. "When Mira and I are dancing, we forget everything in the world." He flopped down on the dully twinkling divan and turned a joyous face to Henry: "Happy to meet you, friend! We'll have dinner and a talk."

"We'll talk first and dine afterwards," suggested Henry.

"We could do that too," agreed Pierre quickly.

"And the talk will be in my presence," warned Mira, sitting down beside Pierre.

Henty looked silently at them for a long moment.

On Earth, such a pause would have been interpreted as a challenge. Here one could be silent even longer without any risk of giving rise to bewilderment or causing offence.

Henry was inwardly seething with rage at this beautiful and unpleasant woman who was so jealously guarding her ugly, cheerful husband. Henry felt for the transmitter in his pocket. The on-off button stuck out sideways; it could be pressed without anyone noticing it. "If I push it, that'll be the end of your tyranny," he thought. "That smile will be wiped off your Pierre's face in a flash. Pierced with incomprehensible yearning, he will turn his face away from you, he will find your little pranks revolting and your demands obnoxious. That's how it will be if I merely press the button. And I will press it, you need have no doubt of that!"

"I insist on a conversation in private."

"Not a chance, if Mira doesn't want it," explained Pierre amiably. "She's a dreadful woman, my Mira, you've never met the likes of her before."

"I haven't met the likes of you before either," thought Henry. "No wonder the machine had such a long struggle with your encoding. There's nothing about you to code, you're so open."

"I'll tell you a strange secret," continued Pierre with a loud laugh. "Without me, Mira loses a kilogram every twenty-four hours."

"And without me, you put on a kilogram," commented Mira.

"Loses weight?" queried Henry darkly. He looked incredulously at Pierre. "You put on weight?"

"We lose weight and we put it on!" exclaimed the fat one. "Without me, she eats

nothing out of misery, and I overindulge in the cheering mist to drown my sorrows. So don't force us to be apart, but talk in her presence!"

"I'm not going to say anything," thought Henry. "If I just press the button, your blethering will be interrupted and no explanations will be needed. I won't tell you what role you could play in the social uplift of the Deltans, I won't even tell you about Stella; you shall strive for Stella with all your heart before you even know her, but once you've met her, you'll love her madly, you'll fall far more desperately in love with her than with Mira, and there will be no Mira in your life any more, but instead you will have Stella, predestined for you by a higher justice..."

He took the transmitter out of his pocket and put it on his knees with the button upwards. One pressure of the finger and the long, drawn-out conversation would be brought to an end.

"The fact is that my proposal is secret," began Henry.

It was a bad start: Henry had no secrets.

After a moment's thought, Pierre refuted Henry.

"You may have secrets from me, but why share them with me, in that case? Mira and I have no secrets between us."

"And we aren't going to have any," added Mira defiantly.

"If I press the button, it's the end of the explanations," thought Henry listlessly, his

spirits falling. A blithe smile played on Pierre's ugly face, Mira's black eyes bored into Henry. "It would be interesting," thought Henry, "to know how she felt the thunderclouds gathering over her head. Now there's a diabolical tuning of the soul for you—she senses hidden danger even without special radiations!"

"I was intending to invite you to Earth on an assignment," said Henry. "But alone..."

"That's out!" exclaimed Pierre and Mira in unison.

"I can see that for myself," agreed Henry.

He stood up, and the transmitter fell to the floor with a thud. Before he could snatch it up, Mira got hold of it. With a shout, Henry tore the box from her grasp.

"You didn't press that button, did you?" he asked in alarm. "This button here—see? You didn't accidentally press it, did you? Please be honest!"

"No, I didn't press it!" replied Mira quickly. Henry's horror had instantly communicated itself to her. "I didn't even touch it, I assure you!"

"Should that button be pressed, then?" inquired Pierre. "Give that thing to me and I'll press it really well."

With a sad smile, Henry put the transmitter away in his pocket.

"That's exactly what you mustn't do. Allow me to wish you a long life, my friends. I won't wish you extra happiness, you have enough as it is."

6

"I couldn't do it," said Henry in self-justification to his brother an hour later. "It was the way she looked at me... Let's find some other means... Anyway, you can call me a fool..."

Roy silently poured some dense coloured mist from the bottle into the glasses. When the bluish smoke swirled at the rims, Roy lifted his glass to Henry. "Let's drink to fools!" said Roy, "I mean good fools."

"Even so, it would be better to target our machine on the investigation of criminals and dangers. We did wrong to give in to Boyachek," said Henry when he had drained his glass.

## PROFESSOR BRANTING'S EXPERIMENT

1

When Henry succumbed to spleen, and this happened regularly after an experiment was over, he would keep away from people. Even his colleagues tried to bother him less at such times, and Roy would act as an impassable barrier between him and his visitors. Any triviality could upset Henry when he lapsed into such a state, and mixing with other people became, in Roy's opinion,

too much of a hardship for his brother.

In fact, what Roy feared wasn't that Henry would blow up and be rude to his visitors. It was the other way round. Henry was so afraid of being rude that he became exaggeratedly mild. He quickly made concessions, unprotestingly allowed himself and his brother to be lumbered with undesirable assignments, and too easily gave promises that were not at all easy to carry out. "The nastiest thing about you is your instant upsurge of kindness when you're in a bad mood," Roy would say to his brother, and Henry would sadly bow his head if he really was feeling out of sorts at that moment, or he would contritely laugh his way out of it, if he happened to be in a good mood.

And that strange business with Silvester Branting—Roy remembered it with annoyance for a long time afterwards—it had come like a bolt from the blue just when Henry, after a complicated experiment, had been relaxing in miserable silence, and Roy, urgently called to Mercury, had left his brother alone for three days.

Henry was lying on the divan with closed eyes, half-dozing, half-dreaming in the full certainty that he was alone in his room. But when he opened his eyes, he discovered a strange man sitting opposite him in a force-field chair; he looked very uncomfortable, as if perched on one of the old-fashioned wooden chairs.

"What are you doing here?" asked Henry, embarrassed, and he jumped to his feet.

"I've been waiting for you to wake up," replied the stranger.

"But I wasn't asleep. Where did you get the idea that I was?"

The stranger gave Henry the impression of being disconcerted. He sat straight up, thought a moment, compressed his lips and said hesitantly, "No, that's probably not the case! It would be better to put it another way... Yes, it definitely would! Something like this: I've simply been waiting for you to notice me."

" 'Probably', 'definitely'! Are you capable of explaining why you've come to see me?"

The stranger brightened up. In any case, the tension left his voice. And it immediately became clear that he was a talkative one.

"Frankly, that's all I want—to explain myself. To be honest, that's why I've come here without invitation or permission—to explain myself. And you may be sure the explanation will be sincere and complete. You will have no cause to complain that I am hiding something, or holding something back or, to put it more simply, falsifying."

Henry desperately wanted to grab the garrulous stranger by the collar and boot him out. And it was here that, as he realised later, he committed his first blunder. Frightened that his uninvited guest would guess what hostile feelings he had aroused in his host, Henry said with forced politeness, "I have no doubts on that score. But I do not see in what way I can be of service to you."

The stranger gestured reassuringly. He was

no more than twenty-five years of age, lively, with very mobile features—the expressions on his rather gaunt face changing so quickly that it seemed as if he had a different expression for every word he uttered. Henry soon became convinced that there was no need to listen to his guest, he could simply watch the man—it was possible to guess from his facial expressions alone what he was discussing. Never before had Henry met such a nervously active face. An impression that was intensified by the fact that the stranger kept his body and hands in strict control, allowing himself neither sudden movements nor excessive gesticulation. The cadences of his voice were also much poorer than his facial expressions.

He introduced himself as John Zwirkun. "No, I won't hide it, I'm the John Zwirkun you've heard so much about. I realise you must be surprised at my beginning with a confession, but nothing must be left unsaid between the two of us."

Henry searched all his memory cells, but not one of them yielded any information about John Zwirkun. Henry had never heard of him. Among the expressions flitting across John Zwirkun's face there was one of surprise.

"You've forgotten my name? Incredible! But you remember Branting, don't you? Professor Sylvester Branting from Mars? The person who grew the caliopis, the famous tree that changed nature on Mars. Well, I was Branting's assistant, his favourite pupil—

not his only pupil, I'm not claiming that, no, but his favourite pupil and, you might say, confidant. Just call me John, I don't like being treated too formally, our customs on Mars are simpler than on Earth, much, much simpler, I venture to assure you. And so from now on I'm John to you, and to me you're Henry, my good friend Henry!"

Only now did Henry realise who had come to see him. The name of Sylvester Branting, director of the Martian Astrobotanical Station, was well known on Earth.

It was he who, ten years before, had succeeded in getting the caliopis to grow on Mars, a many-branched tree with mighty roots and a physiology markedly different from that of all other plants. What was amazing about the caliopis was that it multiplied by the propagation of spores and grew without difficulty in waterless deserts, almost in a total vacuum, with no daylight and at temperatures exceeding fifty below zero.

Tenacious of life in the difficult conditions of the remote planets, such plants were bred by other scientists as well as Branting, but the caliopis proved unique—no botanist so far had achieved such a perfect creation. The gigantic root system of the caliopis not only gobbled up the juices in the ground, but gave off a gummy fluid that did not freeze at sub-zero temperatures, dissolved the hard particles of the soil and decomposed nearly all compounds containing oxygen, hydrogen and carbon. From the elements drawn out of the soil, the caliopis grew its

own trunk, branches and foliage, and the excess was discarded, with the result that each tree was wrapped in a cloud of water vapour saturated with oxygen and carbon dioxide. Forests of caliopis had already appeared in many valleys on Mars, ceaselessly enriching the lean atmosphere. According to estimates, in some fifty years the atmosphere of Mars should be comparable with that of Earth for oxygen and carbon dioxide content. Specialists on Mars predicted the appearance in the next century of rivers and lakes on the now waterless planet, and eventually seas as well—so much water vapour was being synthesised and emitted by the fast-growing caliopis forests.

But it was not this scientific achievement alone that had brought fame to Sylvester Branting. At a session of the Academy of Sciences, Branting had suggested introducing the caliopis on Earth too. With a rare unanimity, the scientists rose against his project. Greedily taking over the soil of Earth, the caliopis trees would rapidly suppress any other form of vegetation. Since the caliopis grew day and night, in summer and in winter, its breath would soon change the composition of the Earth's atmosphere, and this could have dangerous consequences. "The multiplication of rabbits brought to Australia in ancient times will seem like a harmless joke compared with the effects on that same continent of one caliopis grove," said Albert Boyachek, President of the Academy of Sciences, at the session. In another address,

the old scientist resorted to a harsher formula: "I would prefer our dear green Earth to be scattered with plague bacteria rather than with spores of the caliopis which, and I don't deny it, is necessary and useful on Mars."

Branting had to climb down when he encountered the concerted resistance of the experts, but he displayed an incomprehensible stubbornness. He demanded a nation-wide discussion. Formally, he had the right to submit any proposition to the judgement of humanity at large, but all were shaken by the fanaticism with which he availed himself of his constitutional rights. As was only to be expected, the discussion ended in total defeat for Branting. Of all the people living on Earth and the planets, only about a hundred supported Branting. The Big Council banned the import of caliopis spores to Earth. Since then, no one had heard any more about Branting, who was living in offended solitude on his Martian station. During the uproar he had caused, the names of his assistants had often been mentioned, and no doubt John Zwirkun's had been one of them.

All these recollections passed in a flash through Henry's mind when John Zwirkun mentioned his science chief. They did not, however, explain why the visitor had turned up, and Henry raised this point.

"It'll be clear in a moment, it'll be staggeringly clear," said Zwirkun hastily, the different expressions flitting across his face even faster than ever. "Don't worry, there's nothing, absolutely nothing I..." He suddenly

froze, his eyes bulged, he half-closed his mouth and, slowly opening it again, forced himself to say, "Branting's on Earth! He's taken leave."

Henry, however, could see nothing criminal about a scientist travelling to Earth. Every worker has the right to spend his leave wherever he likes. The respected John Zwirkun had also evidently flown in from Mars, but that was no reason why Henry should raise the alarm.

"I don't want you to raise the alarm!" his visitor hastened to add. "That would be pointless... But consider the horror of the situation, consider the horror... It frightens me to talk about it, but I can't keep quiet. Professor Sylvester Branting, a genius of the human race, has gone mad!"

Henry shifted impatiently in his chair.

"The professor's illness doesn't concern me. I personally don't know him and feel no desire to strike up an acquaintance with him."

"Branting's insanity is bound to concern us all, friend Henry! And you'll certainly want to see him when you find out..."

"Find out what? What?" Henry almost shouted.

"That Branting has brought caliopis spores to Earth, a whole box of them, enough... You don't need my help to understand the appalling consequences of one tiny box of caliopis spores."

"But these spores were forbidden on Earth by a special ruling of the Big Council," said

Henry in amazement. "Is Branting really hell-bent on committing a crime?"

"He's deranged! He imagines he's about to achieve a great exploit, that's what he imagines, but a disastrous idea like that could..."

"You must report it to the Directorate of State Machinery at once, John. They'll ascertain where Branting is and issue a warrant for his arrest."

All the expressions that had been flitting across John Zwirkun's face were now obliterated by grief.

"They can ascertain nothing, friend Henry, nothing. I have already approached them. All Earth's police have been alerted, all the cities, parks and deserts are being kept under watch, all the places where Branting could scatter the spores, literally all of them!.."

"He must be arrested and the spores confiscated."

"He can't be arrested. He's gone into hiding. He's vanished. He's mysteriously vanished on Earth, that's what he's done!"

"Nonsense!" said Henry impatiently. "You have a poor idea of the technical possibilities on Earth. Branting's brain emissions have been coded by machines since the day he was born. It will be the easiest thing in the world to trace him from his encephalo-passport, if only he's still alive. The harmony of mental activity is disturbed in the insane, but the individual cerebral code is preserved."

"Oh, you and your encephalo-passport! Branting's changed it!"

"Impossible!"

"Nothing's impossible to Sylvester Branting. He's a genius, and I'm the only person who knows to what truly inconceivable bounds his genius extends."

"Your claim must be proved. I'm not talking about genius, although that is beyond dispute... When Branting disembarked from the spaceship at a terrestrial spaceport, his cerebral emissions would have been fed into the reception apparatus of the security machines..."

"But his cerebral activity suddenly stopped, or rather it was switched over or possibly screened. The professor is a past master at such tricks!"

"Has he just died, perhaps?"

"We would have found his body, but there isn't any body. He's alive, but he's not Branting any more, he's someone else. He did, after all, work out a method by which a man could make himself unrecognisable by changing his features, even his voice, even his height, even the colour of his eyes and hair. It's quite simple: take some tablets and blonde hair turns brown, while dark eyes fade to light shade of blue..." Henry thought that if Zwirkun could be photographed in two different moods, it would be very hard to admit that two men with such dissimilar faces could actually be the same person. The uninvited guest's idle chatter was beginning to get on Henry's nerves and it was costing him an effort not to show Zwirkun the door. Although Henry realised that Zwirkun's news was important, he also knew that there were

many people on Earth who would be much more concerned by such news than he was himself.

"Let's call a halt there, John," he said impatiently. "If Branting escapes us, we shall have to face up to it: caliopis trees will soon be rustling on Earth. I think the government will find a means of coping with such a disaster. It's been a great pleasure to meet you."

Zwirkun was so upset that for several seconds he lost his voice and stared at Henry with silent, poignant reproach. Henry then realised that the brief silence was even more burdensome than the former torrent of words.

"No, no, no!" exclaimed Zwirkun, eventually recovering his power of speech. "Only you and your brother can cope adequately... Look at this, and then you will understand everything!"

He hurriedly took out a big gold plate out of his pocket and put it down in front of Henry. He asked the other to pick it up, examine it and evaluate it, for it would give the key to the search for the vanished professor. Henry weighed the plate on the palm of his hand, felt it, looked at it from above and below and even smelt it.

It was six by four centimetres, five millimetres thick and so heavy that his arm bent under the weight of it. No terrestrial material was as heavy. And it was very cold. Henry had seen Zwirkun take it out of his breast pocket; the metal should surely have

acquired some of his body heat, but it smelt of the cold, it breathed its own inner, special chill.

Henry learned afterwards that the alloy of which the plate was made preserved a constant temperature. It would stay cold even in a flame.

While Henry was examining this artefact, his garrulous visitor was jabbering away with redoubled energy. The sentences followed one another so fast that Henry could not distinguish more than half the words. But even that was sufficient for an understanding of the general drift.

Zwirkun had recently suspected his science chief of intending to break the strict ban imposed by the Big Council. Branting had been behaving strangely and many had noticed something abnormal about his conduct. But only Zwirkun had grasped that the professor had simply gone out of his mind—an old-fashioned case of mental derangement that had been so widespread in previous eras and had not been noticed on Earth for a hundred years.

Zwirkun did not intend to hide that he was helped by books in his diagnosis of Branting's condition. Reading books was his hobby; more advanced methods of absorbing information are preferred nowadays, but he adored books, and in books he read about cases of insanity with symptoms exactly like those which the staff of the Martian Astrobotanical Station had begun to notice in the professor. It soon became clear to Zwirkun

that his chief had planned a crime and that if he, John Zwirkun did not take countermeasures, he would become an involuntary accomplice in the misdeed.

What was he to do? Send a report to Earth? Branting would easily refute any charges, since they were no more than guesswork. Prevent the professor from spending his vacation on Earth? Unfeasible! Stop him taking any spores with him? Even less feasible. John Zwirkun found a brilliant solution.

The fact was that caliopis spores emit special rays, a specific radiation, extremely weak and so complicated that no known receivers were capable of locating them. For the last three years, Branting's lab had been doing research on caliopis rays and John Zwirkun had developed a resonator that could detect them.

"This plate of superdense plastic is the only tuning-fork in the world that begins to respond to the signals of caliopis spores!" exclaimed Zwirkun ecstatically. "Ah, friend Henry, if I told you everything ... all the brilliant ideas and black failures that accompanied my work!.. But the job's been done, yes, the job's been done! You see before you a caliopis spores indicator, the only sleuth in the world, the only detective of genius that can find the box of fatal spores, and with the box, naturally, the professor himself, our poor, our great, our infinitely dear and even more infinitely, if I might put it that way, dangerous professor! And I will add that

there is no screen for the radiations of the spores; not even Branting was able to design one, not even Branting!"

"So what's the problem? Set your sleuth on the trail and seize the dangerous professor by the collar. Excuse me, but I find it more and more difficult to understand why you came to see me!"

Zwirkun replied with another incoherent speech. He had perfected the indicator, but he also needed an analyser of the indicator itself. He could even say that he had invented a magnificent tuning-fork, but without an ear to listen to the resonations of the tuning-fork, the tuning-fork itself was useless. In brief, he was proposing a miracle-working receiver to locate caliopis spores, but it must be supplemented with a special instrument to display the oscillations of the indicator itself. Such an instrument could not possibly be made in the Martian workshops. Only on Earth and only at the Institute of Space Problems could a quick and simple answer be found. The most advanced research lab in the Institute of Space Problems as everyone knew, was run by Roy and Henry. And the brothers had become famous for untangling the most complicated problems, and among those cracked by them were some that could not be called other than space crimes.

"That's why I'm here, that's why!" said John Zwirkun, winding up his account.

"You're mistaken, we're not detectives, we're physicists," was Henry's attempt at an

objection. "We do indeed sometimes encounter a crime, but it is always discovered during the untangling of strange physical phenomena. The detective part of our work is incidental."

"That's just it! Precisely so!" shouted Zwirkun delightedly. "And in this case it will be the same: you develop an instrument for discovering a new type of physical radiation, or, more precisely, not for discovering—that's been done by me—but for transforming what has been discovered into what can be identified... That's clear, I hope, isn't it?"

Henry now felt that his nerves would not stand it if John Zwirkun went on along the same lines. He began to imagine how he would throw his visitor out, how, as he sent him flying down the stairs, he would regale him with farewell expressions certainly not intended for scientific debates. This picture was so vivid, and Henry was so frightened by his own lack of self-restraint, that he lost the will for further resistance.

"All right, leave the plate," he said bleakly. "My brother's arriving tomorrow. He runs our lab and he'll decide whether we're going to help you or whether you will have to approach other physicists."

Zwirkun pulled the most winning of his faces.

"But you? Oh, if you only knew, friend Henry, how infinitely—I will not hesitate to put it so strongly—how infinitely important it is that you and no one else..."

"I agree," said Henry hurriedly, failing. "I'll tell my brother so. For my part, I have no objections. And now excuse me..."

Zwirkun jumped to his feet. He understood. Friend Henry needed a rest. John Zwirkun was going to make no more demands on the time of the famous physicist. John Zwirkun would come to the brother's lab on the following day at the same time. Would that be all right?

As he disappeared through the doorway, the visitor favoured Henry with such a monstrously grateful smirk that Henry shuddered.

## 2

Roy was angered by Henry's spinelessness. Roy considered that the Directorate of State Machinery's lab would cope excellently with the task of searching for a criminal or a lunatic, he did not care in the least what he called the Martian celebrity who had vanished on Earth. Roy was already intending to send Zwirkun's plate to another lab with a brief summary of the task. But Henry, oppressed by the thought of more arguments with Zwirkun, sadly admitted that he was ready to take on another unpleasant job sooner than listen to further streams of requests, accompanied by weird grimaces. Roy looked intently at his brother and said he would investigate the plate; then they

would have another chat about the criminal professor and his favourite assistant.

Roy spent the evening in the lab without Henry, went off somewhere that night and returned next morning to his brother when the latter was still in bed.

"You know, the plate your tiresome visitor left behind is very interesting," said Roy, settling himself next to Henry. "The material and the structure are both an enigma. It generates extraordinary oscillations in response to any radiation from outside, I think it could indeed serve as an indicator for various processes. The growth of the tree-type geranium in my office generates a melodious resonance in it, though a very quiet one. I would like to get some more of the material."

Henry reminded him that the plate had not been handed over for the study of its various potentials. Roy ignored Henry's objection and calmly continued:

"Today, our chemists will carry out a molecular analysis of the plate and then a great deal will be made clearer." He raised his hand, forestalling another burst of protests from his brother. "Now about Branting. Zwirkun's information is being confirmed. Branting arrived on Earth, the machine recorded his encephalo-passport, but the radiations of the professor's brain vanished soon afterwards. No body has been found, no new radiations have been detected, so the professor isn't even thinking of recoding himself under cover of someone else."

"Does that mean he's screened off his cerebral radiations?"

"It does. And, evidently, with evil motives. Under all other circumstances, the professor had no need to hide from terrestrial observation in this way. I confess it has me worried."

"In other words, Branting is a criminal?"

"A criminal is someone who has committed a crime. There's no proof of Branting having done so. But that the reason for his turning up on Earth cannot be officially announced by him is now convincing."

"He's got to be stopped before he can do any damage!" Henry jumped out of his bed in alarm. "Roy, d'you realise how important it is to make an instrument that will decode the plate's oscillations?"

Roy nodded.

"I fully agree. The instrument's ready. One of the portable decoders picks up the plate's oscillations extremely well."

"So the hunt for Branting is on?"

"Of course not."

"But why, Roy?"

"It's your fault."

"I don't understand you."

"You took one plate, but weren't interested which oscillations were triggered off by caliopis spore radiation. Until we have the code of the plate's oscillations, we can't start hunting for the professor. By the way, are you sure there's no way of screening caliopis spore radiations?"

"That's what John Zwirkun claimed. He

must be in the lab by now. Let's go to him."

Roy stopped Henry as he was snatching up his coat.

"I'm the one who's going to talk to John. According to you, he's a disagreeable character. I'll try to convince him that he must adapt to us, not we to him. You don't handle such talks successfully."

Zwirkun, who was already sitting in the lab, jumped up hastily and, with a beaming grimace on his face, went to meet the brothers. Roy coldly invited Zwirkun into his office and gestured towards an armchair. Zwirkun was anxious to talk. Roy stopped him with the same silent, peremptory gesture. Sensing that he was about to be turned down, the visitor kept looking imploringly from one brother to the other.

"I consider that your proposed theme does not correspond to the profile of our laboratory," began Roy icily. Zwirkun turned so white that Roy involuntarily began speaking more quickly. "My brother has a different opinion." Zwirkun looked gratefully at Henry and again said nothing, but merely screwed his face up into a grimace; it may have been his way of expressing extreme gratitude. "We usually give way to each other. My brother didn't want to give in to me, and I had to do so instead." Zwirkun jumped to his feet and wanted to pour out his thanks, but Roy raised his voice and continued irritably, "Please be quiet, I haven't finished.

And kindly stop pulling faces. I don't understand what you mean by them."

"Believe me, it is beyond my control, but I'll try," Zwirkun said softly.

He was trying so hard not to grimace that Henry felt sorry for him. Roy enumerated the conditions necessary for a successful search. Zwirkun handed over a table of the plate's oscillations corresponding to caliopis spore radiation, with a full listing of the radiating object's bearings and the distance to it.

"Yes, yes, the plate will show the direction and the distance in kilometres to..." Zwirkun could not restrain himself and was promptly stopped by a glance from Roy.

It was stipulated that the search should be conducted only on Earth with no flights to other planets, and that in gratitude for catching the dangerous refuge, Zwirkun would supply the brothers' lab with information about the material of which the plate was made. Zwirkun accepted all the terms without quibbling, took a metal ribbon out of his pocket and handed it to Roy.

"Here are recordings of oscillations created by caliopis spores, friend Roy." Zwirkun was so terrified of angering the elder brother in any way that he even spoke without his usual haste, painstakingly enunciating each word.

"Is your plate sensitive enough for a successful search? D'you understand me? Branting could have travelled a considerable distance from the Capital in the few days since he arrived."

"Branting can't hide from my indicator on Earth," came the self-confident reply, "even if he's now on the other side of the globe! Of course, if he's been scattering spores everywhere regardless..."

"...then in that case we'll find him by his tracks, isn't that so? Let's go to the test benches."

Henry knew his brother well and was immune to surprise. But Zwirkun was shaken. The device had already been assembled, and all that was needed was for the search code to be fed into the analysing device. As soon as Roy fed the tape into the decoder, the room was filled with melodious chimes. The apparatus was singing out a subtle melody of pure notes—thousands of silver bells began sounding in the lab. Zwirkun, his eyes bulging, stood rooted to the spot, listening entranced to the music.

"It... It..." he articulated with an effort.

"Yes," said Roy. "It looks as though every spore creates its own individual chime. You were right, Branting is on Earth."

Zwirkun darted over to the bench.

"Where is he? Where? For the sake of everything that exists, where?"

Roy turned the volume up and down; yellow snakes wriggled across the screen of the apparatus and resolved into distinct lines. Branting was in the Capital; he was flying along its streets. Half the wall of the lab was covered by a screen; Roy quickly projected on to it a plan of the Capital and brought the trajectory of the professor's

movement into focus. Branting was leaving the city; the flight curve cut across the centre, started down the Ring boulevard and plunged into the radial streets again.

"He's flying to the spaceport!" Zwirkun's despairing wail broke the silence. "He's committed his crime and how he's fleeing retribution!"

Henry looked in alarm at Roy, who shook his head.

"The decoder's tuned to the spores, not to Branting. If he has the caliopis spores with him, he hasn't committed any crime. Let him leave, it'll be better for Earth."

"Stop him," implored Zwirkun, clutching Roy's arm. "Don't let him escape! Oh, you can't imagine how appalling it will be if he gives us the slip. He must be seized and not allowed to get away!"

Roy called up the spaceport. The spaceport director's office flashed up on the screen. The director raised his hand in greeting to the brothers—they were old acquaintances—and stared hard at Zwirkun, who was writhing with agitation.

"An emergency, Mike," said Roy. "Professor Sylvester Branting from Mars will shortly arrive at the spaceport. He must be detained. He is under suspicion of being about to commit an act which is banned on Earth. He can't be caught in the Capital, since he's screened his brain emissions and changed his outward appearance. Are any space-flights due out shortly?"

"The regular flight to Mars leaves in half

an hour," replied the director. "If your Branting has decided to fly from Earth today, then he can only take that one. The two Moon Expresses have already left and the regular flight to Mercury has been postponed till tomorrow."

"Excellent! Can we be sure of that?"

"Of course. Branting will have to give up his screening at the spaceport. We allow no one into space without encephalo-passport control. I shall ask the Directorate of State Machinery at once for a full electronic profile of your defaulting professor."

Roy switched off the screen.

"We'll go to the spaceport too and we'll take the decoder with us."

Zwirkun was silent in the aircab, and his silence, more eloquent than his former hurried speech, betrayed his nervous excitement.

The aircab touched down at the main entrance. The arrivals were met by Mike Van Weiden, the imperturbable director of the spaceport, in person.

"Have you detained him?" asked Roy as he alighted.

Van Weiden shrugged his shoulders.

"There's no Branting among the passengers."

"But has the spaceship left?" shouted Zwirkun. "Has the spaceship really taken off? How could you allow such a thing?"

"And just why were we supposed to delay the spaceship?" inquired Van Weiden drily. "You asked for one passenger to be checked, not for the cancellation of the interplanet-

ary schedules. I can check a passenger, but a flight can only be delayed in case of emergency."

"He's escaped! He's escaped!" muttered Zwirkun, convulsively wringing his hands. "He's fooled everybody and escaped! Oh, I was expecting this, I was expecting it! So we haven't prevented anything!"

"We'll soon know exactly where Branting's got to," said Roy. "Mike, let us have a small room to set up the decoder. And please check all the passenger encephalo-passports again."

Zwirkun had lapsed into such a state of apathy that he didn't help the brothers as they busied themselves with the decoder. Only when the melodious chimes were heard in the room did Zwirkun jump up and go up to the instrument. The decoder was indicating a bearing in space. Branting was on board the ship with his spores. The vessel was travelling at full speed and, as it receded, the music in the instrument died away.

Van Weiden came in with a passenger list.

"I was right, Roy. The main checking machine has verified all the encephalo-passports a second time and hasn't found Sylvester Branting among them."

Zwirkun snatched up the list and hurriedly ran his eyes down it. He cried out and stabbed one of the surnames with his finger.

"How can this be? How can it be possible? It's monstrous!"

"John Zwirkun," read Van Weiden loudly. "I don't understand—what's bothering you,

friend? The reference section found that according to their encephalo-passports, there was a certain John Zwirkun among the passengers who've just left."

"That certain John Zwirkun is me! And I'm here, not on board a spaceship!" Zwirkun shouted frenziedly.

Roy and Henry exchanged swift glances.

"This is the first time I've ever landed in such a situation," said the director of the spaceport distractedly. "The brain radiations of all the passengers were clear and deep, all indicated good health... We don't allow the sick or debilitated into space. Does that mean someone was radiating in your brain characteristic? But that's physically impossible!"

"You can check my encephalo-passport with the false one that Branting radiated to you, and then you will be convinced that there are possibilities beyond your understanding, that's what I'm telling you!" replied Zwirkun cuttingly.

"An interesting man, this Branting," said Roy calmly. "And his behaviour merits a closer acquaintance with him. First of all, we'll check whether or not he left any dangerous spores behind on Earth. After we've checked, we'll go out after him into space. When does the next spaceship leave for Mars, Mike?"

"The day after tomorrow," said the worried director. "Shall I put down the three of you on the passenger list?"

## 3

"No, of course he wasn't," said the duty controller at the Martian spaceport. "Everyone knows Professor Branting. Such a respected scientist! And as for John Zwirkun, how, I ask you, could he have arrived by the previous flight if he arrived with you and is sitting in front of me now?" The controller smiled amiably at the glum Zwirkun, who made an effort to summon up at least the semblance of an answering smile. Roy shrugged his shoulders.

"Yes, how, indeed? But could you, if necessary, demand a check on everyone who arrived by the previous flight? Summon them to the spaceport, say? Or make it possible for us to visit any one of them at home. You see, we have our suspicions that one of the passengers, namely, Professor Branting, has arrived on Mars under an alias and has physically changed."

"I'm afraid that's not feasible." The controller could not hide his astonishment at Roy's dissatisfaction with his answer. No one on Mars had ever heard of someone being able to hide under an alias, and with his appearance changed. The controller tried to remember the regulations on servicing the passengers on space trips. He was sure that there was no regulation on checking the external appearance.

"I would like to know why it's not feasible," said Roy coldly. "Is it because you don't want such a check, or is it impossible

on Mars to ascertain where anyone lives?"

Spaceport controllers were selected for their energy and ability to preserve their composure whatever the circumstances.

"My personal desires are of no importance," the controller replied with winning courtesy. "You can invite anyone here or visit them in their flats."

"We need nothing else for the time being. We will be perfectly satisfied to meet all the passengers from the previous flight."

"The trouble is that you won't manage it with all of them. Yesterday, seven of the hundred and eight passengers who arrived from Earth before you continued their flight further."

"Further? Where?"

"To Neptune," said the controller gravely. "And there, as you know, special regulations are in force. If the man in whom you are interested,"—the controller was clearly unable to utter the revered name of Branting—"if that person is on a planetary flight, then he could adopt any name and we have no right to ascertain who he really is."

Roy was well aware of the rules laid down for Neptune. They had once been of serious importance, but now there was an element of game discernible in them, but it was a game of which the rules were punctiliously observed. Three hundred years ago, a small group of adventurers had fled from Earth, unable to reconcile themselves to the newly created government. They had founded a colony of their own on Neptune. Armed

with annihilators, the refugees refused to let terrestrial ships approach their planet for a long time. They only capitulated once they were convinced that they would perish of starvation and degeneration without Earth's help, but they stipulated that they would adopt pseudonyms and no one would try to find out who they had been before. This condition was approved by the Big Council as a law applicable to Neptune.

Since then, every settler on the planet took a new name and invented a convenient past for himself. The denizens of Neptune had no biographies, only legends. At first, it seemed that this strange custom would become obsolete with the death of those refugees who had feared punishment for their misdeeds against society. But it was soon discovered that many liked this game of incognito. Dissatisfied with the even tenor of life on Earth, young people applied for work on Neptune and there acted out the parts they wanted to play in life. Actors, not simple inhabitants, walked about on the planet as on stage. Existence on Neptune was hard, the work was exhausting, and so the game of invented personalities lent colour to daily life.

If Branting had fled from pursuit, he could not have chosen a better place in the solar system than Neptune.

"Just the same, we'll check all the passengers who have stayed on Mars," said Roy. "We have small hopes that Branting's here, but we must convince ourselves that he isn't."

It took several days to confirm that conviction.

Roy called Zwirkun over to the hotel.

"It would appear Branting has fled to Neptune," said Roy, summing up the results of their unsuccessful inquiries on Mars. "Of course, there is still a chance that he has cunningly disguised himself here, on Mars. But I think we can dismiss that supposition as groundless."

"I agree," said Zwirkun.

Henry merely nodded silently. Roy said that the search was also fruitless on Mars because there were many caliopis groves on the planet—the decoder was chiming without cease and was indicating all directions and all distances. So much effort gone to waste! They must decide whether to continue the search outside Mars or give it up. Branting's flight gave rise to ominous thoughts. From Neptune, where the rule of incognito was in force, and no one would investigate his past, he could at any time return to Earth. Did this not open up to him a more peaceful road to the accomplishment of his design?

"Exactly, friend Roy, precisely and exactly!" cried Zwirkun, terribly agitated. "Oh, you cannot even suspect, you are not even capable of suspecting how right you are!"

"If Branting is still harbouring the thought of returning to Earth from Neptune," grinned Roy, "then he must take a supply of caliopis spores with him. Thus on Neptune he'll be within range of our apparatus."

"He's taken spores with him, he's taken

them, I'll swear to it!" cried Zwirkun.

"And what if he's taken caliopis spores to scatter them on Neptune?" inquired Henry with restraint.

"Absolutely out of the question!" said Zwirkun quickly. "The temperature's too low on Neptune, even for caliopis. The oxygen given off by caliopis on Neptune can only exist in the solid state. Don't forget that Neptune receives three hundred times less heat from the sun than Mars!"

Roy glanced inquiringly at his brother.

"Shall we call up Armand? He's not overloaded with work."

"As you wish. But it seems to me that now we've started this thing, we should finish it."

"We'll fly to Neptune," decided Roy. "The next starship goes there in a week's time."

## 4

Henry was vacillating. The hunt for Branting lay heavy on his conscience. He had good reason to involve his brother in this business. The safety of Earth was in jeopardy. But the professor's flight to Mars, and from there to Neptune, had thrown a new light on Branting's actions. Caliopis was not banned on the outer planets of the solar system. Had they the right to chase after the professor to a distant planet where references and searches were not allowed as a matter of principle?

With such conviction did Roy support Zwirkun's insistence on further pursuit that Henry kept his doubts to himself. Only during the flight, which lasted over a month, did Henry have a serious talk with his brother. It was hard to convince Roy of anything, but, once convinced, he held his ground. He refuted Henry's doubts. If Branting had no evil intentions, why should he disappear? The professor had abandoned the Martian station, his own brain-child and his life's work—why? Serious scientists, and Branting was one, do not go in for escapades without good reason. That he was up to something was beyond doubt. He must be rendered harmless before he committed a crime. To render him harmless, he must be found. So what was the problem?

"Do you indeed seriously think that Branting's lost his reason? His actions are rational in their way. He knows he's being hunted, and meanwhile he's twisting us round his little finger."

"He's certainly cunning. They say that cunning replaces lost reason in the insane. But surely his very desire to fool us testifies against him."

"No one'll help us with the search on Neptune," predicted Henry glumly.

"Our instrument is going to help us on Neptune," Roy pointed confidently at the decoder standing near him.

Talks in the Directorate of the Neptunian Expedition Colony were conducted by Roy. It was politely explained to him that the

administration did not answer inquiries about the inhabitants of Neptune, except when the Big Council presented a warrant for the detention of a dangerous criminal who had fled there to escape punishment.

"We have no order for Branting's detention, since he hasn't had the chance to commit a crime yet," replied Roy.

"In that case, we don't know of any Branting," came the cold explanation.

"Does this mean that we personally, without any help from the administration, cannot look for the man we're interested in? Are we forbidden to have a talk with him if we find him?"

"You may search and talk as you wish," replied the representative of the Administration. "Except that detention and arrest are forbidden to you."

"Well, we might get something out of a sincere talk with Branting," said Roy when all three had returned to their hotel. "We'll set up the instrument. Branting has only one chance of avoiding discovery now: that's if he's hidden the caliopis spores somewhere and got as far away from them as possible."

"He's carrying the box of spores with him," objected Zwirkun with equally inflexible conviction. "I'd sooner believe that I have two heads and four legs than that the professor will part with that little box, even for a minute ... no, for a second!"

The hotel room on Neptune was filled with the melodious chiming of bells as soon as Roy switched on the apparatus. The decoder

gave a north-west bearing, indicating a distance of a hundred and twenty-two kilometres from the hotel. Roy checked it with the map. That point was the site of the Neptunian Precious Stones Trust's main quarry, from which came the biggest crystals of green Neptunian, irreplaceable in the production of powerful gravitators.

"He's there, he's there!" muttered Zwirkun feverishly. "To the quarry, to the quarry at once, there's not a second to lose!"

"We needn't hurry! Branting won't get away from us now!" interrupted Roy, and he called a three-seater aircab.

Henry didn't like Zwirkun's nervous excitability either. The man was bringing an unpleasant element of frenzy into something that called for a clear mind and a calm spirit. He was behaving more like a hunter out for the kill than a research scientist.

Roy dryly warned Zwirkun that he should not allow himself any harsh language when they drew near to Branting. Zwirkun muttered pathetically that they could rely on him—and fell silent, propping himself up against the back seat.

The sun was at its zenith but, since it was tiny and cold, it was glowing only a little more brightly than Venus. The temperature outside was about a hundred and ninety centigrade below zero. Even in a well-insulated space suit, one sensed the extreme cold that had frozen solid the gigantic cluster of hydrogen and ammonia named Neptune. The aircab was proceeding at reduced speed.

The black triangle of a spacedrome appeared to one side in the midst of the dull white spaces; there stood the starship that had brought them to the planet. Beyond the spacedrome glittered the signal lights of the second subterranean city on Neptune, there were only three of them, and the horizon was flooded with the glow of the quarry.

It was a gigantic bowl in the petrified Neptunian soil. In this locality, a rare anomaly of nature had bound together countless heavy atoms into that amazingly beautiful mineral, famous for its qualities, that was known as Neptunian. And it was for the mining of Neptunian that an expedition colony had been set up on the planet; nothing else on it was of any interest.

Roy flew round the quarry in a circle. The decoder outchimed itself. Scuttling about below were Neptunian excavators or "spiders", designed to work in temperatures of below two hundred centigrade. Quickly moving on eight gigantic flexible legs, they did indeed look like gigantic spiders. The only external difference from spiders was that a flexible trunk protruded from the cabin and ended in a mouth of flame. The machine passed its mouth over the surface, instantly melting the frozen mass so that a whitish cloud swirled upwards. These were the vapours of unwanted gas escaping to the surface and freezing again in mid-air. Only the chunks of Neptunian, which stayed hard even in the flame, settled down in the machine's interior.

One of the spider operators was former

scientist and leading light of Martian astrobotanics, Professor Sylvester Branting. The music of the decoder announced this more clearly than words.

Roy turned down the volume to make it easier to fly the aircab. Soft, now rising, now falling, the music came from an excavator working in the centre of an open space. Roy headed the aircab at the centre of the quarry and focussed the spider's cab on the observation screen. The transparent hood of the machine flashed up on the screen, there was a glimpse of someone's frightened face and a voice cried out in horror, "John, is it you? Is it you?"

Zwirkun, bent over Roy's shoulder, howled into the microphone-tube: "You won't get away now, you crook! You won't get away now!"

His frenzied cry was still ringing in the brothers' ears when the excavator tore out of the quarry. The enormous spider shot past the other machines, jumped precipitately on to the surface and raced in a series of great bounds over the frosty open ground that was dimly illumined by stars. The excavator sped eastwards into the darkness of the night. It was travelling with such frantic speed that within a minute it was already beginning to disappear into the distance. Roy gunned the engine, but the aircabs on Neptune were slow-moving models. He could only get enough power not to fall too far behind.

"Professor Branting!" shouted Roy into the microphone. "We've got to talk to you!"

A despairing wail came back in reply.

"On no account! On no account! The experiment isn't finished. I can't..."

Zwirkun leaned over Roy's shoulder to shout into the mouthpiece, but he moved so clumsily that he snapped off the receiving coil, severing contact with the escaping spider.

"You're too impulsive," said Henry angrily to Zwirkun. "Stop interfering!"

Zwirkun sank back into his seat and muttered something apologetically. Roy controlled the engine fuel supply. Without taking his eyes off the slowly dwindling dark blob on the darkening plain, Henry switched on the spotlight. The blob became distinctly visible, but went on shrinking.

"It looks as though he's going to get away from us this time too," sighed Roy.

Neither Roy nor Henry paid any more attention to Zwirkun, who had stopped muttering. And when a fireball suddenly shot ahead of them, they didn't immediately realise that Zwirkun had furtively opened the viewing window in the aircab's dome and had fired a plasma pistol. The huge spider lurched upwards and fell, its legs snapping. It was now lying on its belly, dark, motionless, growing steadily larger as the aircab approached.

"What did you do that for, John?" said Roy, shaken.

"There was no option!" shouted Zwirkun breathlessly. "He could have got away!"

Roy braked to a stop near the wrecked

spider. Henry was watching Zwirkun and shouted a warning. "Don't let him go, Roy!" He grabbed hold of Zwirkun, who was trying to jump out of the aircab first.

Roy did not react quickly enough to his brother's shout. Zwirkun managed to break away. Henry ran after him, but Zwirkun sprinted well ahead.

Henry was some fifty metres behind Zwirkun and saw him wrench open the airlock door, protecting the cabin from the vacuum outside. By the time Henry entered the airlock Zwirkun was already in the cabin. Pressure in the chamber was evening out quickly, but not quickly enough to let Henry stop what he saw happening on the other side of the transparent partition.

A little old man was writhing on the cabin floor and shouting for help. Zwirkun had him pinned down with one knee and was tearing at his clothes. "Please, please!" shouted the old man, trying to force Zwirkun's hands away. "Be reasonable, the stuff isn't ready yet!" The old man saw Henry waiting in impotent fury for the inner door to open and shouted shrilly, "Help, I'll explain everything!"

Zwirkun looked over his shoulder, saw Henry and started shaking the old man even more violently. Branting's head was banging on the floor and he was choking. The automatic door swung open when Zwirkun jumped back from Branting with a small box in his right hand. Henry rushed to the body stretched out on the floor.

The white hair on the scientist's head was standing on end and his eyes were fixed in a stare of horror. The furious Roy was now in the airlock chamber, waiting for the chance to burst inside.

"You've killed Branting!" shouted Henry in dismay.

"I didn't mean to kill him," replied Zwirkun with hatred and contempt. "But if I did help him to die, I do not regret it."

Henry looked hard at Zwirkun's face, which was glowing with triumph. What Henry had seen of that face before had been only a mask. Zwirkun's grimaces, the kaleidoscopic expressions had all been camouflage, a primitive game. Here was the real face exposed in all its cruel detail—sinister, with piercing, murderously sharp eyes.

Roy finally burst into the cabin and also rushed over to Branting, then straightened up and looked angrily at Zwirkun.

"Will you kindly explain what happened? And show me that box of spores!" He held out his hand.

"Stand where you are! Drop your hands!" demanded Zwirkun with authority. "I shall give exhaustive answers to any questions on condition that neither of you takes one step towards me until I've finished."

Roy would hardly have taken any notice of Zwirkun's demands, but, like his brother, he was shaken by the change in Zwirkun. Roy slowly lowered himself on to a bench and signalled to Henry that he should sit beside him. Zwirkun leaned back against

the wall as if afraid of being attacked from behind. Henry made a move to straighten the professor's outflung arm, but Roy said he must leave everything as it was until the colony's medics arrived. Henry sat down next to his brother. Roy said impatiently:

"You've exceeded your rights, John. The penalty for attacking another person is just as strict on Neptune as on Earth."

"I'm not afraid of punishment," said Zwirkun calmly. He was talking in a new way, without haste, without repetition, with a kind of almost contemptuous indifference. "I have already explained to your brother that I did not mean to finish off that disgusting old man, which, I hope, will be confirmed by the local medics if they're sufficiently well qualified. I was much more afraid that Branting would die before I got to him. Spider operator—only on Neptune could they think of such a job for an old scientist! But Branting survived till I got there. He died, if not at my hands, at least in them. That itself makes me happy. But not only that!"

"The second thing is the box of spores you seized, I take it?"

"Yes, the box, but not one of spores!" Zwirkun shouted this with such triumph that Henry jumped. "There's no need to look for any caliopis spores. The deceased was insane, but he respected the law. He could have blown up the whole world or disfigured the whole of mankind, but he never broke the rules of the road even on Mars,

where they are not so strict. When he went out, he quietly closed the door, put out the light properly, and when he arrived, he never forgot to wipe his feet."

"So you were hoaxing us over this box?"

"I'm glad the truth's dawned on you at last, Roy."

"You weren't exactly quick to help, John. But what's inside that box you evidently need so badly that you're clutching it as if you were in your death throes?"

"Yes, death throes. You can't even guess how near you are to the truth! Just answer me one question. How old am I, in your opinion?"

He looked at Henry, who was to answer.

"Twenty-two... Or twenty-three. You're very young."

There was triumph in Zwirkun's laugh.

"I'm exactly sixty-five. Don't gape at me and don't shrug your shoulders so distrustfully. I'm not fooling you this time. The day when I turned up in your lab, Henry, was my birthday."

"You're fairly well preserved," commented Roy with restraint.

"You needn't be sarcastic. Not fairly well, but absolutely preserved! I'm afraid you won't grasp the difference. The fact is that I haven't changed in forty-one years. I'm exactly as I was on the day when Branting started using me for his damned experiment."

"A new variant of the ancient story about a certain Dorian Grey?" Roy couldn't help grinning mistrustfully.

"No, Roy, no!" Zwirkun shook his head. "I've also read about the prehistorical Dorian Grey. He preserved only his youth, but I've been made immortal. And if Dorian's long youth was the fruit of his passionate desire, my immortality is the fruit of error. Yes, no more than the fruit of error. Branting miscalculated the real strength of the drug he gave me. He wanted to prolong my life, but instead of that he postponed my death. He was intending to keep me young for many years, like Dorian, but he made me immortal."

Roy looked Zwirkun sceptically up and down.

"Are you so convinced that your body is indestructible? The plasma pistol, say, or the atom bomb of our ancestors..."

"Even the simple club of our still more remote Neanderthal ancestors! That would be adequate too. Or a stone falling on my head! I am destructible, but not mortal. My secret is that I don't carry within me the germ of my own fate. I can be destroyed by external causes, but my personal development cannot. I am not evolving. Listen carefully to me and you will learn something about which you have never even guessed. You see before you a man who embodies perfection and infinity. I don't change, for I have achieved absolute harmony. The interaction of my organs, my tissues, my molecules and even my atoms is so well balanced in me that forces acting within me cannot destroy my harmonious inner equilibrium. I can change

only insofar as the nature of molecules changes. This means that my evolution is as prolonged as that of all humankind. I am of equal magnitude to all humankind, although I have remained myself. I have been changed from an individual into a species, from a person into a category. I am the embodiment of perfection."

Roy dryly interrupted his passionate speech.

"You really think you're so perfectly beautiful? You don't look like a god to me."

*Zwirkun fixed him with demented eyes.*

"I am perfect, but not beautiful!" Roy's chilly comment had set him on a new tack. *There was a note of bitterness in his voice.* "Branting didn't change my external appearance and didn't extinguish my human passions. He left a mortal soul in my now eternal body. I loved grasses and trees, which is why I became an astrobotanist. All the grasses will die thousands of times, the generations of trees will change over thousands of times before I grow old. Think, I beg you: thousands of times they will rise and perish, but I shall still be here. I fell in love with Aurora, a wonderful girl, but left her to go on an assignment to Mars. When I returned to Earth, I saw a woman whose best years were behind her, but I was the same, I was still as young! Thousands of Auroras are yet to come into my life and fade out of it again. Just think about it! You all have people who are dear to you, who are with you till your death. But I acquire only to lose, for each

day does not bring us closer by a day, but separates us!"

"Your tragedy comes from your uniqueness," commented Roy. "If only everybody could become immortal..."

Zwirkun waved his hand dismissively.

"I tell you, I'm the fruit of a blunder. There was some carelessness in preparing the drug, and Branting couldn't remember what it was. My immortality is the result of a sloppy experiment, an extremely stupid oversight."

"And have you come to hate your immortality?"

"Yes, yes, yes! My soul, so much mine, has risen up against it, I craved death, not instant destruction, not external catastrophe, no, the inner chance to bring my life to natural annihilation, for without the prospect of death there is no intoxication of living. No, you don't and you can't understand me. Branting did, but to him I was only an exhibit, an everlasting monument to his genius. Out of pity for me, he developed an immortality neutraliser, but refused to let me have it. And when I tried to take it by force, Branting fled from Mars. He knew I'd designed an indicator that could trace the drug and he tried to get further away. But he didn't succeed." Zwirkun threw up his hand and shouted exultantly, "And now, instead of being immortal, I shall be alive, simply alive, intoxicatingly alive!"

He suddenly tipped the contents of the box into his mouth. Henry dashed towards him

with a shout. Roy held his brother back. Zwirkun uttered a prolonged howl, staggered, and toppled over on to Branting's body. His eyes rolled and foam came to his lips.

"Why did you stop me?" exclaimed Henry. "Branting shouted that the drug still hadn't been exhaustively researched."

Roy stared in horror at the two spread-eagled bodies.

"I never even thought, believe me..." he said with an effort.

Henry lifted Zwirkun's hand and let it fall again. Branting's assistant was stiffening in front of his eyes.

"Perhaps it's better for him," said Henry pensively, "that the drug in its present state neutralises immortality only by stopping life in the process. John Zwirkun would never have returned to a normal life. He hated immortality, but he had tasted eternity..."

## THE MAN WHO WALKED THROUGH WALLS

### 1

The news of Academician Ivan Thomson's death was broadcast when Henry and Roy were in the institute's dining-hall. Roy turned pale and momentarily lost his voice, while Henry dropped his spoon. The vast hall,

always buzzing with conversation, was instantly struck dumb. Frightened faces turned as one towards the loudspeaker relaying the sad voice of Albert Boyachek, President of the Academy of Sciences.

He was informing the staff that in the course of the night, during a complicated experiment, the main generator in the Transient Fields Lab had blown up. Duty operator Arutyunian had suffered severe injuries to the skull. Thomson, who had been working in the experimental chamber, had been pierced by a short-focus gravity field. Death had occurred instantly. A special commission was investigating the circumstances of the accident.

"I can't believe it!" said Henry, shaken. "I could have imagined almost anyone dying suddenly, but not Thomson. And what a horrible death—in the grip of a short-focus field!"

"Yes," said Roy, and the pallor had not left his face. "You're right: Thomson and sudden death somehow don't go together."

Armand joined them at their table. He had seen Thomson the day before. They had consulted the academician about their own version of a gravity accumulator and he had rejected it. He had been sarcastic at first, pointing out the miscalculations, and then he had sketched out a new design that would be more reliable than the one developed by Roy and Armand. As he handed the sketch to Armand, he impatiently demanded that the brothers and their fellow researchers should

stop allowing themselves to be distracted by the investigation of mundane mysteries and should finally concentrate on serious projects. He slapped the drawing with his hand and said angrily that he had been waiting too long for a gravity accumulator. It was a simple machine and it was needed urgently.

'I'm sure he really thought at the time that gravity accumulators are child's play to build and only laziness would hold things up," admitted Armand sadly. "I've no doubt that when he handed me the sketch he promptly forgot it was his own design. He'd have remembered the accumulator afterwards as our independent work only. He was amazingly generous, the way he used to give out ideas to others and then sincerely compliment them on what had come from him in the first place!"

"He was full of contradictions," said Roy thoughtfully. "He combined the sober engineer and the madman; the analyst and the romantic; impulsiveness and profundity; sensitivity and crudeness. He was a man of many parts. That's probably why opinions of him differed so much."

"No one ever disputed his gifts as a scientist," commented Armand. "He was elected to the Academy of Sciences when he was only twenty—an unprecedented case."

"I'm talking about his character, not his scientific work..."

The institute staff dispersed to their various departments, still excitedly discussing the dreadful accident. Roy went back to his

own lab and tried to concentrate on work, but failed. Henry and Armand both called on him, since they couldn't work either. In addition to the pain caused by the death of someone close to them, Roy was distressed by the thought that they would have no one to turn to for qualified consultation on their gravity research.

Henry, sitting silently on the divan, was remembering Thomson himself. They had been of the same age and had been bound by an old friendship. And although their lives had taken different courses—Thomson had soon become a celebrity and had quickly climbed the ladder of scientific fame, whereas Henry had slowly earned his modest authority—the liking between the two men had remained unshakeable. Roy could talk intelligently about Thomson's theories and how they would influence subsequent generations of scientists and their work. Henry was thinking about a lost friend: a big piece had been torn out of his life and the wound was bleeding.

Armand drew attention to Henry's stubborn silence.

"Henry, will we manage to finish the gravity accumulator in time? If we mobilise the full resources of the lab and you don't get distracted by something else... Is that what you're thinking about?"

Henry smiled wanly.

"I was remembering Thomson's first flight over the Capital."

His answer set the conversation on another

tack. Armand had only heard about this event, whereas Roy and Henry had been eyewitnesses to Thomson's sensational test flight on the first model of an antigravity machine. Thomson, who had been elected to the Academy six months previously, had built a graviplane in the form of a mop. Wearing a black woollen track suit, his long hair fluttering, the youngest academician in the world had ridden a mop over the Capital with long sparks jetting out behind from the strands of the gravity antenna. Thomson had tried to make this side effect look impressive.

The test flight of the graviplane caused a stir in the Academy of Sciences. Some laughed, some were outraged. The president was one of the first to laugh, but then sternly demanded that Thomson should modify the frivolous design of the graviplane. Thomson promised to build another model, quite different. It was indeed different. This time, Thomson flew in a gigantic mortar, controlling it with the aid of a broom. The laughing spectators crowding the squares of the Capital were delighted at the way the broom was putting out the sparks trailing behind the mortar like a glittering scarf. The impression was that in Thomson's energetic hands the broom was sweeping up glittering rubbish. In a speech on stereovision, Thomson said that he was satisfied with the test: the second model had helped to establish important new laws. In the same broadcast Academic Leonidov advanced the opinion that it was impossible to equate practical joking with profound

academic research, and promised to prove it at a session of the Academy in the near future.

"I was present at that session and I well remember Thomson's triumph," said Henry. "You got me in on your invitation card, Roy. Remember how Thomson refuted the old pedant?"

Before Roy could answer, he was sent for by the president of the Academy. Henry went on reminiscing about his friend's success at the session. Thomson proved that fun needn't exclude profundity. The entire hall applauded when Thomson explained the simplicity of the equations for a transient field to control the movements of his models. But even in this ceremonial hall, he lived up to his reputation.

Leonidov tried to prove from the chair that the equations had been worked out in a slovenly manner, the blueprints of the graviplane were inaccurate and therefore an antigravity pulse could not have taken place in the exhibitionist flight of his much respected colleague. It was this emotional moment in Leonidov's speech that Thomson chose in order to pitch his opponent up into the air.

The old academician, his hands thrown apart, his face twisted pathetically, was slowly floating over the chair, and a smoky radiance emanated from his white hair that had suddenly stiffened like wire. On finding himself back on solid ground again, Leonidov cried out amid the universal uproar, "There wasn't

any antigravity! And there won't be any! That's not antigravity! You've found some other kind of field! I demand that you apologise to me for using hastily invented circus tricks instead of serious arguments!"

When he had gained silence from the gleeful audience, Thomson in his turn demanded that his colleague, Academician Leonidov, should apologise to him, for his much respected opponent had inflicted such an insult by accusing him of hastily thought-up circus tricks. What had been demonstrated to the learned assembly had not been a circus trick, but a decisive experiment, a genuine *experimentum crucis*, and it had been prepared not in haste, but over a period of four months. "I can support this claim with my working notes!" declared Thomson. "Exactly a hundred and nineteen days ago the initial data for the experiment were entered in the laboratory log—your height, weight, body measurements, habitual dress, even..." The end of the sentence was forestalled by the general laughter.

Roy returned when Henry and Armand had proceeded from old memories to impressions of their joint work with Thomson during the last two months. Henry looked in fright at his brother: Roy had gone out upset and had returned depressed. Roy was able to keep his moods under control. Evidently, Boyachek had told Roy something so disturbing that he had lost his usual self-possession.

"This is awful!" he said, sitting down

heavily on the divan. "Anything might have been expected, but not this!"

"Fresh details of the accident?" asked Armand.

Roy shook his head.

"Fresh details, yes. But not of the accident. It wasn't an accident. It was a crime."

"A crime?" Henry jumped to his feet. "You mean to say Thomson was the victim of foul play?"

"He was murdered!"

"Murdered?" echoed Armand incredulously. "In our time? On Earth? And a distinguished scientist at that?"

"A murder was committed just the same!"

"And who's the murderer, Roy?"

"His assistant, Robert Arutyunian."

"Rorik?" shouted Henry, flabbergasted. "That mouse? That living collection of all the schoolroom virtues? That vessel of polite phrases and sickening obligingness? It's unbelievable, Roy, it's unbelievable."

"I'm telling you what Boyachek told me. Rorik has recovered consciousness and has confessed to murdering Thomson."

"But what about motives, Roy? He couldn't have gone and done it just like that..."

"Apparently Thomson robbed his assistant of his fiancée, Agnessa Antonelli. At the time of the accident, Thomson was leaving for an assignation with Agnessa, and Rorik availed himself of the moment for a cruel act of revenge..."

"But wait, Roy," said Armand. "Thomson was killed in the test chamber and not at

Agnessa's. What does she say about it?"

"She's in hospital, like Rorik. She is in deep shock."

Armand threw up his hands in bewilderment.

"I don't understand, Roy."

"I don't understand much myself," admitted Roy. "When Rorik came round, he muttered what I was just telling you and then lost consciousness again. I heard the tape-recording of his statement. He kept getting into a muddle and leaving sentences unfinished."

Henry was striding furiously up and down the room.

"Now there's one man I didn't like! I used to feel embarrassed at my own hostility to Arutyunian and I tried not to let it show. And so it wasn't prejudice, it was insight!" He stopped in front of Roy with a vengeful expression on his face. "You know, I'm not an evil man. If I'm called as a witness who knew Thomson, I'll tell everything that I felt when I met Arutyunian."

"You'll be doing the calling yourself, and you can summon anyone you like. Boyachek invited me to leave the investigation of the technical circumstances of the disaster to you. I couldn't refuse," Roy added angrily when Henry seemed about to protest. "Thomson was our chief and your friend. We have no moral right to stay out of it. But if you still don't want to take part in the investigation, explain your reasons to Boyachek personally. I don't want to act as intermediary between you, especially since you're his

favourite, not me."

"I shall help with the investigation," replied Henry glumly. "Just one condition: don't give me your usual talk about impartiality and objectivity! I'm partial and subjective, you might as well know that in advance. I'm not going to whitewash any faults and I shan't look for mitigating circumstances. And I'll do everything to make sure that the culprit is given the maximum punishment!"

"You won't be the only one; Armand and I also have some say in the matter." Roy turned to Armand, who was plunged in thought. "But I haven't asked you whether or not you agree to take part..."

"And there's no need!" Armand smiled sadly. "D'you know what I was thinking about? Murder out of jealousy is, of course, a revolting relic of the past... If we were living in the times of Shakespeare or Pushkin... Altogether, in those days, when rivals settled their accounts with weapons... What a girl!"

"Agnessa's beautiful, of course," agreed Roy. "With her figure, she could pose for the statue of an ancient goddess. And she's always interesting to talk to. But that doesn't clear Rorik."

## 2

Henry knew that he was about to see a dreadful sight and he steeled himself not to be nervous. Nor was he when the three of

them were admitted into the Transient Fields Lab. He was so depressed that he couldn't be nervous. There was no body. The concentration of the gravity field had taken place inside Thomson. He had been compressed—not crushed, but compressed with such force that in a fraction of a second he had been turned into a sphere no bigger than a football. And when the fatal field had surged back, not a single cell of his body could return to its former condition.

"Only that mechanism of disaster can explain the clinical picture of his death," said the medical expert. "But how such a field could form and where the explosion of gravity forces took place is something you must explain to us yourselves."

Roy stood for a long time in front of the control panel. Henry and Armand went into the test chamber. The panel, with its control buttons and its mnemonic schemes, and the spherical chamber were thoroughly familiar from earlier visits to Thomson's lab. Roy closed his eyes. He imagined himself as Robert Arutyunian at the moment of the gravity explosion. Rorik had to put his right hand on that remote control button while his left hand was feverishly rotating the valve that controlled the gravity capacitors. A monstrously powerful field was building up in the centre of the chamber, and inside that chamber was Thomson.

Did he guess at that last moment what a fate was in store for him? What a gigantic vice would compress his brains and heart?

In the Universe, cases are frequent when a star collapses after losing its equilibrium. In a few minutes, a giant star, millions of kilometres in diameter, becomes a tiny, unimaginably dense sphere. In the Transient Fields Lab, a man had been collapsed, a departmental head, one of the most talented of living scientists! Why had such a crime been committed?

Roy looked inquiringly at Henry and Armand as they got out of the chamber.

"The walls aren't damaged," said Armand. "The gravity explosion was concentrated at the centre of the chamber, and evidently it was instantly quenched by the generator's safety capacities. The jinn was let out of the bottle for a microsecond and sucked back again just as quickly."

"Rorik took care not to perish with his chief," said Roy glumly. "Gravity jinns are much more dangerous than the legendary ones."

"Even so, Rorik suffered a skull injury," commented Armand. "In my own reconstruction of the disaster, Rorik's injury is unaccounted for."

"He could have deliberately inflicted it on himself to confuse the investigation of the crime," suggested Henry.

Roy rejected this theory.

"I would agree if Rorik had denied his guilt. But he confessed immediately afterwards. A man intending to give himself up to justice after a crime doesn't cover up his tracks."

"The more so," added Armand, "that the blow to the head was so violent that it could well have been fatal. I think it was all much more complicated than we imagine."

Armand began collecting up the tapes of the working diaries in Thomson's safe. Henry stood apart and spent a long time looking at the spherical chamber in which his friend had been killed.

"Any new ideas?" inquired Roy.

Henry slowly shook his head.

"I shall now inform Boyachek of our first impression after a survey of the lab, and you can help Armand," said Roy.

Roy was absent for quite a long time; Henry and Armand were able to collect everything they thought might be necessary.

"Boyachek told you something else," guessed Armand with a glance at Roy when he returned.

Roy nodded.

"Not just something else, but something important. They've got tapes of Agnessa's delirium. And she started talking."

"Does she confirm Rorik's confession?" asked Henry.

"She keeps saying the same thing over and over again: 'I killed Thomson!' "

Armand whistled in astonishment.

"Another criminal! Now why did she have to kill him? Girl takes revenge on her admirer! Even in ancient times, they could ignore love, they could fail to respond to love, but they didn't take revenge for being loved! That's no motive!"

Henry smiled nastily.

"You're a great authority on affairs of the heart, of course. But I might point out to you that Agnessa was not simply the object of Thomson's admiration, she was also Rorik's fiancée. Hasn't it occurred to you that Agnessa and her fiancé were simply partners in crime?"

"Then she would have said 'we', not 'I'. And he would have said 'we' too."

Henry refuted Armand's objections. "A person in love will protect the beloved even if it means going as far as self-accusation. Rorik is shielding Agnessa, Agnessa is shielding Rorik—what could be more natural?"

Roy interrupted their argument. He didn't object to the construction of working hypotheses, but they had to be expressed, not imposed. He did not like Henry's heated tone.

## 3

It was not a confession, but a wail bursting out in a fit of despair. Henry had played the video tape three times. The doctors were stooping over Agnessa's bed; she kept tearing herself free of them and screaming, "It was me! It was me that killed him! I killed him!" A vibrator was hastily applied to her head. The radiation calmed her; she quietened down and closed her eyes. The vibrator was carefully removed from her head. Agnessa lay unconscious for a while, then came round

once more. She raised her eyelids, looked about her, remembered something and went off into hysterics again, sobbing, tossing and turning in bed, and trying to jump out and escape. "It was me, it was me!"

Roy looked significantly at Henry.

"Now re-run her ravings," requested Henry.

Her delirium was as monotonous as a wail. The same picture occurred over and over again. Near the wall, decorated with a picture of a forest, stood Thomson. His head was lost in the closely packed tree-trunks but his legs were inside the room. He was moving forward; his chest out and his head back, slowly, with a heavy tread, he was coming into the room. He was laughing. His voice rang out in the hall where the brothers and Armand were sitting. "Now, do you see?" shouted Thomson exultantly. "Now, do you believe?" He fell on his knees. He stayed there, kneeling, and reached out his arms, so that the whole screen was filled with his two arms, two powerful, insistent arms joyously reaching forward... Suddenly everything was plunged into darkness, and then the darkness dispersed, and Thomson was standing by the wall, apparently half inside it, slowly detaching himself from it and again moving forward, laughing exultantly...

"Nothing before or after that one scene," concluded Henry after the second showing of the delirium. "Is there any sense in such a fragmentary vision?"

"There undoubtedly is," declared Roy confidently. "The most striking events are the ones that get remembered. Evidently, this scene was what impressed itself most deeply on Agnessa's mind."

"Any scene, even a simple landscape, has its subject, a special content of its own. But we haven't the slightest idea why Thomson turned up at Agnessa's place and what happened between them. We see him appearing in her room, but how did he behave there? That's what seems most important to me."

"You inspected Agnessa's room," said Henry to Armand. "Was the wall an ordinary one?"

"Solid wall blocks. The picture was the original of a tropical landscape by Norman MacMillan, a mediocre artist. I found out that it has been in that room for about ten years. Agnessa must have taken a liking to it. But why is every detail of every tree reproduced with such uncanny precision in her delirium?"

"I insist that Agnessa remembered what mattered most," continued Roy. "Which means that Thomson's visit was more important than what he did there afterwards. I have no idea why it should have been so. You have nothing to say, Henry?"

Henry started nervously, as if his brother's question had caught him unawares.

"What can I say? We're investigating the circumstances of Thomson's death. We know very well that it was brought about in the chamber of the short-focus gravity genera-

tor. I can't link up the accident and Agnessa's delirium for the time being."

Armand pointed out to the brothers that the time of the scenes which Agnessa saw in her delirium coincided approximately with the time of the explosion that occurred in the lab. Unfortunately, the analysis of the sick mind's visions was far from perfect and the error was within some ten to fifteen minutes of the exact time. But whatever the inaccuracies, there could be no doubt that both events—Thomson's appearance at Agnessa's place and his death—were close to one another in time. His proposition was that Thomson had annoyed Agnessa by calling on her; she had complained to her fiancé and the maddened Rorik had taken his revenge on Thomson the moment he entered the test chamber. This version explained why Rorik and his fiancée had both confessed to the crime.

"Theories, theories!" said Roy in exasperation. "We sit in an office constructing hypotheses which could be refuted by the first word from Arutyunian or Agnessa."

"We could ask the doctors to revive the patients for just a short while," said Armand. "With Agnessa, that will be fairly easy; there's nothing wrong with her apart from nervous shock. It's more complicated with Rorik, but his life isn't in danger, so we could rely on his recovering consciousness."

"Let's share out the tasks," proposed Roy. "Armand will continue investigating the technical circumstances of the accident,

while Henry and I will try to obtain somewhat more coherent explanations from Rorik and Agnessa than penitent mutterings and hysterical wails."

Henry frowned.

"You're turning me into a real criminologist, Roy! I'm still a physicist, not a detective. I'd prefer to help Armand."

"I'm afraid that the cause of Thomson's death is closely tied up with psychology, if not directly determined by it," said Roy coldly. "It's harder to unravel psychological tangles than to find out the errors in the design of a gravity generator. I don't want to tackle it on my own either."

## 4

She looked in silence at the brothers who were sitting in front of her bed. Her bare, thin arms lay on the blanket and her pale face with its sunken cheeks was turned to the visitors. Illness had wrought great changes in Agnessa. But even as she was, haggard and grey of complexion, she was still beautiful. Henry suddenly felt guilty before this woman whose mental privacy they were intending to disturb so rudely. He was silently cursing himself and Roy. Roy should have come on his own.

But Roy too was feeling embarrassed. He cleared his throat and said without his usual self-confidence, "Agnessa, d'you know why we asked for you to be brought round?"

"Yes." She had a low, resonant voice. "D'you find it hard to talk?"

She smiled sadly. There was too much understanding in her look.

"I find it hard to live. You can ask your questions."

Roy cleared his throat again. Asking questions was not as easy as he had imagined when he had insisted on seeing Agnessa. Covertly, so as not to upset the patient, Henry studied her. She had long eyelashes and big grey eyes that seemed impossibly huge on the emaciated face. Henry could not have explained what it was about Agnessa that he found striking, but he knew that he couldn't treat her the same way as other beautiful women. Even earlier, he had felt tense when meeting Agnessa; it was impossible to be on casual, friendly terms with her.

"As you realise, we have come because..."

Agnessa stopped Roy with a feeble gesture.

"Better if I begin. Ask if anything's not clear. Just let me collect my thoughts."

The doctors kept their promise. She spoke freely, but paused frequently for breath. She was obviously hiding nothing. Henry had been oppressed by the thought that they had come to subject a sick woman to a tiresome interrogation. There was no interrogation, just a confession.

Little by little, with his interest engaged, he was imperceptibly drawn out of himself and ceased to be merely a listener obliged to gauge the degree of truth and error in each

word, the degree of guilt and innocence in each act.

He walked along the street with her, sat beside her in the theatre, saw what she was seeing, thought her thoughts, spoke her words. The identification was amazing; he wanted to kick himself, to shake off the magic of the spell, and in his anger he actually described the effect of her words as a spell. "What a laugh," he told himself with annoyance. "I'm someone else, I'm not capable of living by any woman's feelings, much less of living by Agnessa's." This protest arose when she started talking about Robert. He was not, to her, the Rorik whom they had all seen—modest, quiet, so exemplary in all things that it made you feel sick. As she made Henry see him, he was good, considerate, responsive, even handsome, the most anyone could desire. The Rorik he knew had not seemed like that to him, but he had to believe her if he was to understand her. She was a girl in love, everything was clear, he tried to explain her attitude to Rorik for his own benefit, but the most important thing of all was not clear—why her love was so blind. Agnessa was intelligent; she was regarded as a leading astro-archaeologist; hers was a specialty that particularly favoured the development of the critical faculty—from one small bone, from the imprint of a single paw, one had to recreate the outward appearance and behaviour of a long-extinct creature, so how could she be so wrong about a man who was close to her.

Roy kept nodding silently; he understood everything and did not intend to become involved in an argument. "All right," thought Henry listlessly, "believe in everything she says, then Armand and I will overthrow your faith on every count." He was beginning to lose interest in Agnessa's explanations. As he saw them, they led away from reality: they did not clarify, they obscured.

"Robert said he'd invite Thomson to our wedding," said Agnessa. "It was all the same to me, I didn't know him after all. Robert decided to introduce us beforehand so that there wouldn't be anyone new to me on the day. I'm very sorry I agreed. Perhaps everything would have been better if that introduction had never been made and the wedding had been held without guests... I didn't like Thomson; unsightly, small, so quick-moving, could never sit still for a moment, talked all the time—interestingly, of course, but only about his work. No, he seemed tiresome to me, I got weary of his conversations."

"Did you tell Robert about your impression of Thomson?" asked Roy.

"Yes. We never hid anything from each other. I also told Thomson that I didn't like him. That was later, when he fell for me. Incidentally, he fell in love with me earlier—at first sight, so he always said. I told him he was disagreeable to me, and then he swore that life for him wasn't worth living without me. I answered that he'd behaved disgracefully as regards Robert, this was upsetting

me, and in fact everything about him was upsetting me."

"Did he give up the idea of getting you after that snub?"

"No, he was totally incapable of backing down. If you knew him... He believed nothing was impossible if you wanted it hard enough. He said, 'Agnessa, if you wish, I'll stab myself in the chest so that you can see my blood seething with passion for you. It'll foam with love and you'll like that ...' "

"You laughed, of course, and offered him a knife?"

"I was frightened. No, you don't know Thomson! Only Robert understood him at first, then I began to as well... Robert used to say that Thomson would do anything he promised, absolutely everything. He was the sort to weigh things up first and then promise. If I'd given him a knife, he would have stabbed himself. He used to say that Robert had fallen for me because I had shown up in his field of vision, and if it hadn't been me, he would have calmly married some other woman. But Thomson said he would have remained lonely all his life if he hadn't met me. I was the one part of his soul that he lacked, I was one in a million, one in thousands of millions... He knew how to talk!"

"How did your strange relationship end?"

"He called one evening. I said I was going to be Robert's wife, I'd made my promise and I was going to keep it. Thomson swore he'd persuade Robert to back down. I showed him out. I said the door of my room was

shut forever as far as he was concerned."

"Was he angry?"

"He laughed and shouted, 'What about the walls? D'you think you can shut my love out with them? What's stone to them? They'll divide as soon as my love touches them!' "

"Oh, how I wanted to hit him! I said that I'd teach him a lesson. 'Boaster, big-mouth, walk through the walls,' I said. 'Glide through that stone, through this wall here, the outer one.' I prodded it with my finger. Oh, what a crazy thing to do! I'll never forgive myself!"

"You're not listening properly, Henry," said Roy quietly, and he turned back to Agnessa. "Did Thomson go on teasing you? I very much respect his talent as a scientist, but he wasn't particularly tactful in ordinary life." Agnessa covered her eyes and a tear rolled down her cheek. Roy fell silent. A long minute passed before Agnessa spoke again.

"He didn't laugh any more when I mocked him; he went terribly white in the face... His voice broke and his eyes shone very brightly... He said slowly, 'So we're agreed on that: I'll glide through your wall to convince you of the power of my love, but then you'll say that you love me and you'll consent to be my wife.' So I shouted back, 'In any case, I won't say it until you become a ghost who can walk through walls. And now get out!' And he left at once."

Roy exchanged glances with his brother.

"And he kept his promise? As far as I understand, it was him walking through the wall in the recording of your delirium."

"I don't know what I was raving about or what you found in the recording," said Agnessa wearily. "About a month passed and I never saw him. Nor did I see Robert: he was busy in the lab all the time. He was very upset when I told him about my last meeting with Thomson. Robert said nothing and sadly shook his head... I didn't understand at the time..."

"Did Thomson get through to you on the day of his death?"

"Yes, he jumped out of the picture. I was terrified."

"I can well imagine! He was laughing, went down on his knees and stretched out his arms to you—that was the image from your delirium."

"Yes. Then he said, 'I have two minutes or I'm a dead man. Say you love me!' "

"What did you do?"

"I don't remember now. I think I pushed him back to the wall. Yes, that's how it was. I implored him to leave as soon as possible. He kept saying he was a dead man if I didn't hurry up and reply, and that he wouldn't go until I confessed my love. And then I heard Robert shout..."

"Did he show up in the room too?"

"No, no! He was shouting from Thomson, from inside him. It was too much! I looked at Thomson. He suddenly went silent and inside him there was this frantic shout from Robert: 'Come back, the reserves are used up. Quick! Quick!' "

"What happened next?"

"Thomson shouted to Robert, 'Don't panic, there's still another half left! Hold me in the beam.' Then he said to me, 'Another minute of your silence and I'm done for.' And then I..."

"And then you?.."

"Yes. I embraced him, I shouted, 'I love you, I love you!' And just at that very second he disappeared into the wall. It was so horrible!"

"Calm yourself, Agnessa. Unfortunately, the past can't be mended. If it's too much for you, don't say anything."

"I want to finish. I heard two shouts, they were so..."

"Shrill? Despairing?"

"No... The worst you could possibly imagine! They were completely identical. But I knew they were both shouting, Robert and Thomson, but screaming in identical voices. Absolutely, absolutely indistinguishable... And I realised they'd both been killed! I don't remember any more!"

"Are you aware that Robert's going to live?" said Roy after a brief silence. "Mind you, he'll be under treatment for a long time."

Agnessa did not answer; another tear rolled down her cheek.

Roy did not speak for quite a while after they left the hospital. Henry refrained from disturbing his thoughts.

As they were approaching the Space Problems Institute, Roy said, "I'm afraid your version of a premeditated attempt on Thomson's life by Rorik and Agnessa

hasn't been borne out. However, if you don't believe Agnessa..."

"I believe her," said Henry.

Once in the corridor, he added glumly, "But I don't withdraw the charge against Rorik. That Agnessa heard two absolutely identical shouts still proves nothing. Goodness knows what shouts she could have imagined herself hearing at that dreadful moment. We must check. We must check meticulously."

"Yes, you're right," responded his brother. "We must check. And above all we must check the most important aspects of what we found out today: that Thomson had developed a safe method of passing through solid bodies. Not too safe, as subsequent events showed," added Roy, pedantically correcting himself.

"By the way, I had a suspicion they were busy with something of the sort in the Transient Fields Lab," said Henry thoughtfully. "Thomson loved impressing the imagination. To him, a scientific discovery without a practical joke was salt with no savour."

## 5

Armand was not surprised when he heard about Agnessa's story. He had ascertained that special fields had been generated in Thomson's lab. Thomson used a variety of names for them in his working diary: protective, screening, antiparallel and gliding.

"The name evidently varied according to the particular function of the fields," explained Armand. "Their general function is that they screen each particle of matter from external forces, preserving the internal bonds in some way. I read remarkable notes made a month before Thomson and Agnessa had that scene... That demand about the wall. In the lab, a piece of gold the size of a fist passed freely through a steel sheet without suffering even microscopic deformation."

"After that, Thomson wanted to pass through matter like that piece of gold," said Roy. "Sensational, of course."

"The following definition is written in one of the diaries: 'A material body is points of matter divided by gigantic spaces of emptiness and bonded by weak fields,' " continued Armand. "This gives the essence of Thomson's experiment. Agnessa suggested as an impossibility the project on which he was already working. The claim that the wall could not withstand his love seemed just a vulgar boast to her, but it had really been an abstract description of a discovery already made. She was wrong to confess to murder."

Roy shrugged his shoulders.

"There may have been a murder, but Agnessa's confessions carry no weight. A woman in shock is capable of blaming herself for anything and everything! In ancient times, certain women confessed that they were witches and flew on broomsticks. I don't think that anyone ever actually made any such a flight before Thomson."

"Can I visit Rorik with you?" asked Armand.

Roy looked inquiringly at Henry, who nodded affirmatively. Armand was more willing to tinker about with machines than to question human beings. He announced with satisfaction that after deciphering the working principles of the gravity generator, he would clarify the nature of the beam in which Thomson had ordered Rorik to hold him.

"I've no doubt," said Armand, "that this beam was created in the focus of the test chamber and enabled Thomson to penetrate anything he wanted. But it evidently had a limited life-span. I refer to Rorik's shout that the reserves were used up."

"Rorik will tell us himself what he was shouting about and why." Roy glanced at his watch. "It's time we went, Henry."

The doctors warned the brothers that the patient would be conscious during the conversation, but was physically very weak. They could talk about anything they liked, but should formulate the questions so that the answers could be short.

Robert was lying in a half-darkened ward. His head was swathed in dressings to restore the damaged tissues and bone. He looked dispassionately at the brothers and did not acknowledge their greetings. Roy affectionately touched the hand lying helpless on the blanket. Henry could not bring himself to do likewise. The old hostility—Henry was ashamed of it and hid it because it was

groundless—surged up with renewed force. Robert, dark-haired, dark-skinned, with a permanent expression of mourning on his face, always reminded Henry of the martyrs in the pictures by the old masters. This alone was enough to disturb and irritate him.

"Yes, I'm ready to answer," said Robert indifferently. "But I've said it all. I can repeat that I..."

Roy hastily stopped him. They knew about Robert's self-accusation and it was naturally worrying them a great deal. But before anything else, they wanted to know more about Thomson's experiment. Was it true that special fields had been discovered or invented to screen particles of matter from external forces?

"Channelling, not screening external forces," said Robert. "We called them gliding fields..."

"Yes, channelling, or gliding, or protective, or screening," said Roy. They had become familiar with all these definitions from the diary entries and were not at present intending to ascertain the physical nature of the screening fields, the problem was too complicated. "So Thomson went into the test chamber; he had been irradiated by the short-focus generators, he had become all-penetrating and had started out on his remarkable journey, while you, Robert, sitting at the control panel, kept him in the beam, that is, kept the generator rays focussed on him. Was that not so?"

"It was and it wasn't," said Robert with

the same impartiality. "I was in focus too. We were the two extremities of a dipole."

Roy bowed his head.

"Very well, a dipole. A kind of dividing stick, one end of which easily penetrates walls while the other sits enthroned in a chair in front of a control panel. Could such a dipole exist for long?"

"According to estimates, fifteen minutes. We could have miscalculated by a minute. But we were much further out."

"We'll come back to that too, Rorik. I want to talk about Thomson's journey, if you'll permit me. He went off to meet Agnessa and you knew where he was going. Why did you allow him to visit her?"

"How could I stop him?"

"But she's your fiancée!"

"He'd fallen in love with her, Roy."

"You loved her too. And she loved you, otherwise she wouldn't have been your fiancée. Why did you allow him to estrange Agnessa from you?"

Robert stared silently somewhere into space with a fixed, sad smile on his face.

"Thomson," he said quietly, "was an amazing man. No other like him existed."

"You say he'd fallen in love with Agnessa. But he could have fallen in love with many others in his life."

"He didn't do so. Agnessa was the first. And the last."

"That's what he said to her. D'you consider his words to be the truth?"

"He never lied."

"It must be said that his wild pranks..."

"He played practical jokes, but he didn't tell lies. He was incapable of lying."

"Forgive me for insisting on an explanation that must be very painful for you, Rorik. Was it true what he told Agnessa about you? I mean that you had only fallen in love with her because she happened to turn up in your field of vision, and if it hadn't been for her, there would have been someone else?"

"I don't know. Probably. I wouldn't have stayed alone if I hadn't met Agnessa. I didn't have the chance to verify..."

"Would Thomson have acted differently in this sense?"

"I'm sure he would never have married if he hadn't met Agnessa."

"If you hadn't introduced them to each other, to put it more precisely. And so of all the women in the world, she alone was the missing half of his soul. That's what he said and you agreed with him as far as I understand. Had you decided to give her up in his favour for that reason?"

"I didn't give her up."

"But Rorik, your actions..."

"No, you misunderstand them, Roy. I had to renounce her..."

"Had to?"

"Yes, had to. I wasn't capable of such generosity... I'm worse than you all thought..."

"I don't understand you, Rorik."

"I left the decision to Agnessa. She had to choose between us."

"And you would have been reconciled to her dropping you? But you loved her, Rorik!"

Rorik slowly turned his head towards the brothers. Henry looked away in embarrassment. He suddenly felt that he had been wrong to make such fun of this strange man.

"I love her indeed, Roy."

Roy went on asking questions.

"Did you hope she would choose you nevertheless? In other words, didn't you set up an experiment to test the power of her love for you? Have I understood you rightly, Rorik?"

Rorik looked at Roy for a long time, and such misery dawned in his eyes that Henry wanted to grab his brother by the collar and get him out of the room as quickly as possible.

"Oh," whispered Rorik, "you are all so ... such a trite explanation?"

"But I'm trying to get to the bottom of things," objected Roy carefully. "And it's not so easy, Rorik."

"On the contrary, Roy! But it's hard to talk about! All right, I'll tell you... I love Agnessa, and that means I want her to be happy. Her happiness is mine too. And if she had chosen me, then I would have been at her side, always at her side, caring for her. What's so hard to understand about that?"

"Lie down, lie down, Rorik!" said Roy in alarm.

Robert made an effort to sit up and gripped Roy by the hand. Roy wanted to press

the patient down on to the bed again, but Arutyunian wouldn't let him.

He was talking faster and faster, and Roy hadn't the nerve to interrupt him again.

"But if she had chosen him... That would show how much more she loved him if she had decided to give me such a shock!.. Think about it, Roy, how much more? Was it for me to stop it? Or him? Or her? I could be happy with her, Roy, yes happy! But prevent her happiness—no!"

He sank back into the pillow, exhausted.

For about two minutes there was silence in the ward.

"Fire away," Robert said in a weak voice. "I'm ready for you."

Roy brought up the tragedy in the test chamber. They could imagine how Thomson set off on his sensational trip through the wall. But why had there been a disaster? While with Agnessa, he had shouted that the generators still had half their reserves left. Had he made a mistake?

"We both made a mistake. We were caught out by an error in our calculations."

"How did you find out about this error?"

"I suddenly felt that the stability of the dipole we had created was breaking down. Thomson had to be called back at once."

"And you did so. But he didn't go. He clearly had too much faith in a calculation that proved erroneous. Could you have rescued him by force?"

"I could have."

"And you didn't do so?"

"No, I didn't."

"Why? Did you want them to finish their scene?"

"Yes. It had to be cleared up..."

"But you clearly understood the danger of any delay?"

"I don't know. I don't remember what I was hoping for... True, I tried..."

"Tried what?"

"I tried to focus the explosion of the dipole on myself. The system allows it. One covers the other at the price of his own safety. If only I had pulled Thomson out of Agnessa's room a second earlier!.. There was a discharge in me, and that put Thomson's death off for a moment, but he still didn't get out of the chamber in time..."

Roy laid his hand on Robert's shoulder. "We're not going to ask you any more questions, Rorik," he said with emotion. "With all our hearts, we wish you a speedy recovery!"

When they had left the ward, Roy asked his brother, "D'you still insist that he's guilty?"

"No," said Henry after a pause. "He's not guilty of foul play, as I suspected. But it seems to me that even now he hasn't quite clearly realised just what happened in the lab."

"Was that what you were thinking about so hard when I was questioning him?"

"Precisely."

"Anyway, you might at least tell us about your latest ideas, Henry."

Henry smiled.

"I haven't got any. Various cloudy notions. Let's find out if Armand has made any discoveries and we'll discuss the possibilities that Thomson and his assistant didn't anticipate for some reason."

## 6

"You're doubtless expecting me to come up with sensational news," said Armand. "And I've got it! Something that you couldn't ever have thought of."

"If it isn't that the generator's power reserves were nowhere near exhausted, then I really can't imagine what it could be," said Henry calmly.

"That's exactly what I've found out! Thomson was right, the generators had still more than half their reserve left. Some external force had punctured the screening field."

"You may now tell us what you were brooding about in Rorik's ward."

"Armand has beaten me to it. I was thinking it must have been some kind of external force that screwed up Thomson's calculations. I could allow anything except an error in his computations. That Thomson could be careless in an experiment is absolutely unbelievable. And if the idea of such an error occurred to Rorik, that can only have been because he was flustered."

Roy agreed that the theory of an external

cause of the accident was highly probable. But, the question was, what external force? Where were they to look for it? Maybe Rorik's state of mind had been the cause of the accident? If a man turned himself into the pole of a gigantic, all-penetrating dipole, the nervous potentials in his brain could become a kind of command signal, and there could be no doubt that Rorik was nervous.

"I'm not going to dispute it," said Henry. "It may be that the psychological state of the experimenters is somehow tied up with the equilibrium of the field that creates the total penetrability. Thomson would have done research on the theory of such a possibility, for he knew that he and Rorik were the physical elements of the experiment."

"Then we're left with the action of unforeseen factors from outside. Such as, for instance, particles unknown to us drifting through space."

"Yes, that's fully acceptable."

Armand also subscribed to this idea. Thomson had not just discovered fields unknown to him. The physical processes taking place around us had been thoroughly investigated and there were no "Thomson" fields as such. What Thomson had done was to invent new aspects of forces. How they tied up with other fields and forces required further study. A rogue cosmic particle had penetrated the short-focus chamber and had made a tragic correction to the apparently irreproachable calculations.

"This will all have to be researched," was how Roy summed up the discussion. "But that's no longer our concern. We've arrived at a remarkable conclusion, but Thomson's ominous discovery must be temporarily hushed up until the screening fields can be guaranteed to work safely. Another thing. We must inform Agnessa of the results of our investigation. Who's going to relieve her of her own and Rorik's guilt feelings?"

"You, of course," said Henry hurriedly. "You upset her with your questions, so now you can go and put her mind at rest."

"You're the one that's going," said Roy sternly. "I upset her, that's true, but I don't feel guilty towards her and Rorik. But you suspected her sooner than I did, you tried to prove them guilty before we checked. Let your explanation be your apology."

When Roy spoke in that tone, it was useless to argue with him.

Agnessa was asleep when Henry was shown into the ward. The doctor wanted to wake her. Henry asked him not to. He sat quietly in an armchair by the bed and patiently waited for her to wake up. Her case history—Henry glanced through it—noted rapid recovery after serious nervous shock. Illness had changed the girl so much that he would not have recognised her in the street or at the institute. In the few days since he had last seen her, she had lost even more weight, her cheekbones had become prominent, her nose was sharper, the formerly

smooth skin on her brow had been etched with lines; there were newly-formed crows' feet running from her eyes. But Henry also thought with amazement that, for all the changes, Agnessa had not lost her beauty. It was strange, almost unimaginable. Her former loveliness had been formed of features harmoniously blended together, in her everything was lovely—eyes, lips, cheeks, brow hair, neck, arms, figure... But now it was all distorted, every line on her face seemed almost ugly, if taken separately. Ugliest of all was the scrawny neck and the withered hands; the body under the blanket had doubtless lost its former suppleness and grace. But all these elements, ugly in isolation, now formed an image different from the former one but no less perfect in beauty.

Agnessa's eyelids trembled. She turned her head to look at Henry.

"You again?" she whispered. "What for?"

"I've been instructed to inform you about the results of the inquiry," said Henry quickly, "and I want above all to tell you that you have no cause to blame yourself for Thomson's death. Rorik is not guilty either; everything was different from what you imagined."

He told her about the conclusions of the investigation. She burst into tears. Her body was racked more and more violently by her sobs; she turned her head away and buried her face in the pillow. At a loss, Henry remained silent.

"Why should I be told this? Why?" she muttered through her tears.

He waited for her to calm down a little and said sadly, "It seemed to me you would feel better if you found out..."

"How could I feel better?" she said, interrupting him in her anguish. "D'you think I was lying when I told Thomson I loved him? He's gone. And he'll never come back! Please don't, please don't!"

## GENIUS THRUST UPON HIM

### 1

Henry switched on the screen of his pocket telefinder. The façade of a three-storey building decorated with columns came into view, a balcony girdling the whole of the first floor and a tower bristling with antennae. The structure in the garden would bear no resemblance whatever to a contemporary house, if it were not for the numerous antennae on the tower. Moreover, it was isolated.

Someone touched Henry on the shoulder. He looked round. A frowning giant of a man was looking down at him.

"What are you doing here?" asked the giant, transfixing Henry with a hostile glare.

Henry knew that the house in the garden was probably the only building in the Capital to be protected by special personnel for whom the ancient term "security guard"

had been revived. Henry, however, pretended not to know who the stranger was.

"I don't know why you ask me such a question!" He thought he had given an excellent picture of surprise.

The guard was not so easily fooled.

"You understand perfectly well, friend Henry!"

Henry really was surprised this time.

"You know me?"

"Do I look like a savage?" retorted the guard. "According to you, there are people on Earth who don't visit the Space Museum and never watch the stereo-transmissions, isn't that so? You and your brother are hardly in a position to complain about lack of publicity."

Henry admitted defeat.

"Naturally, I know the Institute of Special Problems has been given its own security service. But I thought it was permissible to look at the house from a distance, friend ... friend..."

"Jennison. James Jennison, if you've no objections. There's no harm in looking, needless to say, but not with a telefinder TIB-812, Model 13, special issue for workers in the Investigation Department of the Space Directorate. Only if you've taken the trouble to obtain a permit for the use of that model of telefinder, and if there are no reservations under Articles 14 and 15 specifically applicable to our institute..."

Henry burst out laughing and put the telefinder in his pocket.

"I was lent the telefinder for temporary use by an investigator in the Space Directorate department you just mentioned. I've never worked with such an instrument before and I was curious..."

"Your friend's name, if it's no secret?"

"Why should it be a secret? Prokhorov. Alexander Prokhorov. He lent me the instrument, but he didn't give me a permit."

"And he won't do so," confirmed Jennison. "I doubt whether he had a permit himself. I'm only talking about Articles 14 and 15, the rest don't concern me. Those two articles can only be signed by President Boyachek of the World Academy of Sciences. And, as far as I know, he told Daumier, our director, that he would personally deter any attempts at information gathering and would not trouble us unduly himself."

The guard was clearly very much in the know on anything to do with the Institute of Special Problems. The conversation had to be terminated. Henry made a last attempt to get something out of it.

"I won't make a secret of it, friend Jennison: I'm very interested in one of your staff. Could you pass on a small message to him for me?"

Henry took a miniature dictaphone out of his pocket to whisper a few words into it. Jennison put out his hand for it.

"Only for you, friend Henry. I'd be embarrassed to say no to a famous scientist like you. In ten minutes your message will be on Daumier's desk, and your friend will

hear it in an hour."

"I would like my friend to receive it first-hand, and not from the director of the institute."

"That's out," said Jennison regretfully. "Didn't you know that our staff live under barrack-room conditions? I have no right of personal contact with them. I only see the director and his deputies."

"Barrack-room conditions?" repeated Henry. "What d'you mean by that weird expression?"

For the first time, Jennison found himself at a loss.

"They explained to us... I can't remember all those funny old-fashioned words! If you don't mind, I'll have a look in my service dictionary." He took out a plate with a keyboard, and selected a word. "Barracks, barracks," he repeated, applying the plate to his ear as it whispered the explanation. "So a barracks is a state building, a hostel for clerical staff and workers living in conditions of a special regime obligatory for each resident. Does any of it make sense to you, friend Henry?"

"All of it, and in full," announced Henry, and he went away.

## 2

"Are you sure he's in that house in the garden?" asked Henry doubtfully. "The lack of his cerebral emissions still proves nothing. Jock Wagner could at this very

moment be happily flying to Neptune, where encephalo-passports aren't registered and each worker on the planet can assume any name instead of his own and any legend instead of his real life-story. I'm not talking about the possibility of him having simply died."

Alexander Prokhorov, a young, energetic investigator at the Space Directorate, had systematically refuted every one of Henry's propositions. An escape to Neptune was, of course, the simplest version, and it had been checked first. The starship to Neptune had left eight days previously. There had been a hundred and seventeen men and sixty-nine women on board who had expressed a desire to remain anonymous, but Jock Wagner had not been among them. His cerebral emissions had ceased twenty-four hours before the ship had lifted off for Neptune.

He could not have been on the starship as dead cargo, i.e., a corpse. All freight is checked before being accepted on board ship.

"Jock couldn't have been delivered aboard the starship while unconscious, drugged or stunned. While a man is alive, his brains work. The powerful analysers at the astroport would have detected the activity of a brain, however weak it was."

"You haven't said anything about the hypothesis that Jock is dead."

"I can neither confirm nor refute it. There is no body identifiable as Jock Wagner's, and no one has reported a fatality."

"Apart from himself."

"Yes, apart from himself. And Jock's message is the most important testimony in favour of my version that he has been screened and is at present in the laboratories of the Special Problems Institute. First, he mentions Daumier, and Daumier is the director of the institute. Second, Daumier's institute is the only establishment on Earth where screening is permitted. Jennison told you that the staff there live under barrack-room conditions. This information matches my own data. When a man enters the institute, he severs all personal contacts with Earth, in other words, he's lost to us. No, friend Henry, Jock Wagner is with Daumier."

"A convincing version, although a surprising one," said Henry thoughtfully. "I would like to hear the message from Jock that made an investigation necessary."

"It was caused by Jock's disappearance, not his message," objected Prokhorov. "The letter is only the jumping-off point for our search."

Prokhorov fed the sheet from the dictaphone into the desktop decoder.

"Ricci, important news, help me if you don't want to lose me," came Jock's thin voice. When he was working on Mars, Henry had often met Wagner, and now he thought that the voice gave an exact portrait of the man himself, just as nervous, restless, unbalanced, hot-tempered and very good-natured. "Daumier's agents are harassing me. They're pestering me with absolute rubbish. I've

already complained, but they've warned me that the disclosure of secrets... No, there's nobody there, I thought they'd just come in! What a damfool way to have a leave interrupted, I shouldn't have flown here. After all, I could have been having a rest-cure in one of the sanatoriums up there, but no, I had the itch to come here in a hurry! Ricci, my dear fellow, they'll be here any moment, I'm going to leave a recorded message without them noticing. I could ring you, but I'm afraid my conversations are monitored as are all my actions. Those nogoods have sophisticated devices of a kind you and I have never even dreamed of. Get me out of this, get me out of it or I'm a dead man for sure! I've got myself involved in such a nasty business, you've no idea... When we meet, I'll tell you about their demand and their ridiculous intentions. Ricci, my dear chap, bang your fist on the table more convincingly, that's the only thing that'll help, but quickly, or it's curtains. I tell you, these sons-of-bitches'll stop at nothing. Call on Roy and Henry to help, they're friends of mine and they'll get me released, they'll be able to prove that... They're coming, they're coming! Ricci, help..."

The recording broke off with a howl of rage. Henry shook his head with a smile.

"I can imagine what a fury Jock was in when he shouted this message. Have you informed Ricci Varavia about it?"

"A radio message was sent after the spaceship 'Emerald' on which Ricci flew to

Mars. It's unlikely to tell him what's happened to Jock."

"Was Ricci very worried when he saw that Jock wasn't aboard the spaceship?"

"He simply informed us that one of his colleagues was held up on Earth and no reasons had been given. He couldn't even imagine Wagner getting into trouble. He considered Wagner a lady's man and thought that some love affair had detained him on Earth."

Henry laughed.

"And he's right if he thinks that. But there's hardly likely to be a girl mixed up in it this time."

"I think so too. Wagner's recording, as I've already told you, was delivered to us after the 'Emerald' lifted off. Jock dropped it into the letter-box in such a hurry that he forgot to record the address, and they didn't know what to do with it at first. I asked you immediately to come with Roy when I found out about the contents of the letter and learned that Wagner's cerebral emissions had suddenly disappeared from the registration in the Operational Archives..."

"It's a great pity you were a day late. Roy probably wouldn't have flown to Mercury if he'd known that Jock had run into a spot of trouble. Now let's talk about the Institute of Special Problems. What do you propose to do?"

"What would you propose, friend Henry?"

"In my opinion, the situation's clear. I would demand a meeting with the director of the institute."

"As I've already told you, that was my first intention. But I was informed that the director receives no one and refuses to discuss such matters. And you yourself checked the possibility of getting on to institute territory."

"In that case, we must get a search warrant for the institute and its living-quarters."

Prokhorov stared morosely at the floor.

"I tried that too. I applied to Boyachek for an interview a week ago."

"Did he talk to you personally?"

"There was one of his deputies in the office, a fat little old man..."

"Khromin. A rather disagreeable character. What did he say?"

"Almost as soon as he opened his mouth, he started shouting loud enough for the whole floor to hear, 'You needn't go snooping around Daumier! That institute's affairs are none of your business! Nobody's committing any crimes in there. Get out, and be quick about it.' Damned rude."

"Khromin can be harsh. But maybe he's right and it really is stupid to think there's been a crime where Jock's concerned."

Prokhorov frowned. A stubborn expression suddenly appeared on his face. Henry realised that he shouldn't argue with this man. At first acquaintance, the investigator had seemed an amiable young man, pining for work in his department where nothing serious had been done for a long time, because neither on Earth nor on the planets had there been any serious incidents. Prokhorov's

round, ruddy face, puffy lips, tiny chin, and button nose filled Henry with the conviction that this was an irresponsible youth who had sent for him to carry out routine formalities; he and Roy had been mentioned in Wagner's recording, a chat with them was unavoidable. But Henry had been wrong about the investigator's character; Prokhorov was expert at his job, an enthusiast of the investigative art. Henry knew that it was not easy to get on with such people when they disagree with you. Henry was amazed at the incident with Jock, but he couldn't entertain the thought that crimes were being committed in Daumier's institute. Prokhorov had immediately suspected a crime and was piling one proof on top of another with inexorable consistency.

Even the fact that he answered with careful restraint betrayed how irritated he was by Henry's qualms.

"A man disappears. He warns that certain scoundrels are after him and these sons-of-bitches—his own words, Henry—will stop at nothing, meaning at nothing dirty, of course. Let me remind you that when I officially inquired whether Jock Wagner is in the institute, I was told officially and rudely that I must not demand any explanations whatever from them."

Henry realised that he must help Prokhorov. "I think that the leadership of the institute and even the leadership of the Academy of Sciences are answerable to higher authority."

"I've been relying on that too. I approached the Directorate of Social Order."

"Without success?"

"They answered that until I present proof of force having been used on Wagner, I shall be refused admittance."

Henry shrugged his shoulders. Everything suggested that his own doubts were shared in the Directorate of Social Order.

Henry reflected in silence. Prokhorov, frowning, did not disturb his thoughts.

Henry himself spoke at last.

"Weren't you interested in what they're doing at Daumier's institute?"

"Of course I was. The institute's special subjects could shed light on the Wagner incident."

"What did you find out?"

"Only that I had no right to know anything. The research programme at the institute is stamped 'Specially Secret'."

Henry looked at Prokhorov in amazement. "Everything to do with that institute is so special that I'm beginning to think there really is something fishy going on there."

"I don't doubt it for one moment."

"Have you thought of a new plan of search?"

"I want to get into the institute and have a close look at its staff."

"Without official permission?"

"I don't intend to pry into the institute's research work—it's secret. But it's impossible to keep a person's existence secret."

"Daumier is apparently allowed to keep

people secret as well as work," said Henry.

"Don't forget that secrecy, so common in ancient times, quickly died out after the formation of a world government and the cessation of interstate hostilities. For some reason, Daumier has revived this obsolete custom. I would have nothing against it if I didn't suspect that he's using secrecy for underhand purposes and perhaps for actual crime. I can't turn my suspicions into convincing proof, but I'm used to trusting my own intuition and it has never let me down yet. Daumier is up to no good! I'm going to flush him out into the open. And I'll free poor Wagner."

"If he's alive."

"I'm sure he's alive; he's just run into trouble. Are you going to help me further, friend Henry?"

"I'd like to know what you have in mind," said Henry cautiously.

"My profession gives me the right to personal screening. Without that, you understand, it would be difficult to carry out certain searches. True, not optical screening—permission for invisibility is not given to us either without special application, but at least we have guaranteed immunity to certain search rays. In particular, we are protected from infra-red detectors. This means we can move about at night undisturbed. I can lend you a spare suit."

Henry hesitated. He had a lot of work to do in his lab. Possibly in a week's time, when Roy returned from his assignment...

"No, tonight," said Prokhorov firmly. "I have no right to delay when a man has to be rescued."

## 3

It was just the kind of night they had wanted. Even in the daytime the sky had been overcast and a mist had appeared at ten o'clock at night. By midnight, the mist had become so dense that visibility was no more than five paces. The screening suits looked like ordinary tracksuits, except that they were much heavier. They were too warm for that time of year. Prokhorov had warned Henry not to drink anything. Henry had not even had any dinner as an extra precaution, but he was bathed in sweat nevertheless. Prokhorov, in alarm, asked him to wipe his face more often: vapour could not be screened, and the institute's automatic detectors could intercept the wisps of steam.

The street on which the institute stood was brightly lit, and despite the mist Prokhorov was fearful of climbing over the garden wall in front of the building and chose a spot to one side, where the wall ran almost right up to a dark lake. The fence was about two metres high, but Prokhorov lightly pulled himself up, silently jumped over it and held up both hands for Henry. Henry was no great shakes as an athlete. In spite of Prokhorov's assistance, he fell to the ground. They listened tensely for two minutes or so. The tall larches were as silent as if they had gone to sleep. Not

a sound came from the garden.

"The main thing is to go quietly," whispered Prokhorov and by pushing a button on his belt he changed the misty blue protective colouring of the suit to a darker shade more in keeping with the gloom of the garden. "I must warn you, the sound of footsteps isn't screened."

He turned on the telefinder screen to minimum brilliance. Tree-trunks appeared. The investigator moved the telefinder beam further along. When the three-storey house appeared at the back, Prokhorov took its bearings and put the telefinder away.

He walked in front, stepping so quietly that Henry couldn't hear his footsteps. Henry also tried not to make any noise, but was much less successful. As he walked along the path, he could hear the gravel crunching underfoot, and when he swerved to one side, his feet swished through the grass. Henry thought uneasily that although a human ear was unlikely to hear him sneaking along, audio-detectors would be able to catch the noise. When they came out into the little glade in front of the building, he sighed with relief, although it was here that the real dangers began.

Prokhorov signalled to Henry that he should stay where he was and, with another push of the button, he changed the dark colour of his suit to moonlight-yellow to match the lighting of the paths near the building.

The change of colouring did not give invisibility, but ensured a rough blend with the background.

Hidden in the bushes, Henry could only shake his head in admiration when Prokhorov went down on the ground and began crawling towards the building. His body blending with the path, the investigator moved easily and noiselessly. He nimbly crossed the illuminated area and disappeared round a corner of the building. But just at that moment, someone's powerful hands covered Henry's face and gripped his head with such force that, half-blinded and half-strangled, he could neither shout nor break free. He could only clutch convulsively at the hands holding him and make a frantic wrench to one side. A second pair of hands clutched his calves in a dead grip, the ground slipped from under his feet and he realised that he had been picked up and was being carried somewhere.

He tried to break free again, but something stifling was blown on to his face. "They're doping me, the devils," was the thought that flashed through his mind before he lost consciousness.

He came to on a settee in a big, brightly lit room. In the armchair opposite him sat a grinning Jennison, and beside him stood two men who were almost as tall as the security guard himself.

Henry felt his ribs and winced.

"Ever thought of wrestling with bears in the circus, friend James? You'd be a hit."

"I never wrestled in the circus, but had occasion to in zoos," answered Jennison readily. "They say bears were considered mighty beasts in ancient times. In my opin-

ion, that's a myth. A good bear usually holds out against me for two minutes. You needn't even dream of such a time, friend Henry. Incidentally, my best at weight-lifting is seven hundred and twenty kilograms. I'm not a champion, but still..."

"But this is no excuse for suddenly grabbing hold of me and dragging me off like a log!" commented Henry with annoyance.

"And what was I supposed to do if you suddenly broke in on the territory I'm guarding? My friends, the night watchmen," and he pointed to his two assistants who were also laughing, "and I dislike it intensely when we get criticised for failing in our duty. But more detailed grounds for your arrest will be given to you by Paul Daumier, the director of our institute."

"Send for him, in that case! I object to being arrested!"

"He'll come to the institute in the morning. You can have a nice rest until then."

Two more watchmen helped Prokhorov in; he could hardly walk. His weary look showed that they had failed to take him by surprise, like Henry. The watchmen carefully conducted Prokhorov to the second settee and helped him to lie down.

Jennison stood up.

"We're going to leave you for a while. Don't get the idea of jumping out of the window. That trick won't work here. No one escapes from this room."

"May we talk?" inquired Prokhorov feebly.

"Conversations are recorded," warned Jennison, playing it fair.

Prokhorov looked him up and down with hatred.

"A crime organised according to all the rules of science!"

Jennison shrugged his shoulders.

"I always thought that criminals were people who defy the regulations, crawl uninvited on to protected territory and break into closed premises. However, you can discuss the philosophy of crime with our director; he's well informed in the matter and in everything else."

Jennison and the watchmen left. Henry asked Prokhorov what was to be done now. The investigator wearily closed his eyes.

"I'm going to get some sleep. So Daumier's ready to see us in the morning, is he? Well, at least we've got that far. He wouldn't be receiving us if we hadn't tried to break in. As they once used to say, every cloud has a silver lining."

## 4

Henry knew it was morning when Jennison came into the room.

The security guard waved lightly to his prisoners in greeting.

"I hope you're feeling well, friend Henry," he said.

"I feel like a bear who's held out against you for three minutes, not just two," grum-

bled Henry. "Evidently, you don't spare that kind."

"And we're going to complain," added Prokhorov grimly. "I'm going to demand that you be punished for assault."

"I'll give you the chance to complain," promised Jennison briskly. "I'm going to take you to Daumier. The director is waiting for you, friends."

As they walked down the corridor, Henry tried to see and memorise as much as possible, but did so without showing too much interest. Prokhorov, unabashed, kept turning his head to right and left, looking back and stopping to see better. There was, however, nothing to see. Henry knew little about the architecture of ancient buildings, but the impression that they were in a house which was related to the category of hotels or hostels was confirmed. He remembered that those buildings were indeed designed in a special way, with long corridors on each floor and rooms on either side.

Jennison stopped outside a door which did not look in the least different from the others.

"This way, please."

A small man of about forty was sitting at a desk at the back of the room. He indicated armchairs to Henry and Prokhorov and nodded to Jennison.

"You may go, James. I'm pleased with you. You've done a good job."

"Thank you!" barked Jennison, and he closed the door behind him.

Daumier turned to the prisoners.

"I have no questions to ask you. It's all perfectly clear. You attempted to trespass on forbidden territory without permission and you were detained. But you have questions for me, I'm sure. No doubt you want to know why our territory is under guard, why are we forced to detain you and what is going to happen to you next. Have I formulated your questions correctly?"

"And one more," said Prokhorov dryly. "Why, in fact, did we have to get through to you in such a way?"

Daumier's eyebrows shot up.

"You probably know best yourselves why you chose such a means."

"No!" said Prokhorov angrily. "We're perfectly aware of the fact that we used this particular means. But why did we have to use it? Why did we have no other way of getting through to you?"

"These are all tantamount to the same question: why is the territory under guard?" objected Daumier. "I shall give you exhaustive answers to all these questions. But I must start a long way back, with work which was assigned to our institute exactly two years ago. This work..."

"Perhaps we could begin with events nearer to us than the work of the year before last. Let me reformulate the basic question: what circumstances made it necessary for us to get through to you in secret?"

"As far as I understand," said Daumier courteously, "you are interested in Jock

Wagner, the astrozoologist from Mars, is that not so?"

"Perfectly correct! He has disappeared under mysterious circumstances. We want to know where he is and what's happened to him. And we suspect that if he is still alive, then he is somewhere here! Please answer that question."

Without intervening in the exchange of fire between the director of the institute and the investigator, Henry studied Daumier intently. Daumier was the kind of person who occupies more breadth in space than height. A massive trapezoid body was supported on thin legs—their unhealthy thinness had been noticeable when the director had risen to greet the newcomers. Jennison himself might have envied the breadth of his shoulders, although the guard was at least half a metre taller. On the gigantic shoulders there wobbled a tiny, shaggy head with such enormous eyes and such a big, rapaciously hooked nose that the head seemed to consist of three parts: a shock of stiff, white hair, two piercing black eyes and a nose that looked like a small trunk—the end almost came down to the lower lip.

Daumier kept laughing as he listened to the investigator's irritable demands. His manner of laughing was no less astonishing: without opening his mouth, without screwing up his eyes, without puffing out his cheeks, like other people, he laughed with a change in the glitter of the eyes, and his nose, suddenly mobile, began to quiver. Henry liked the

director. From a man with such an unorthodox appearance one could expect unusual behaviour. Henry remembered that the president of the Academy of Sciences had a high opinion of Daumier. Albert Boyachek had no time for mediocrities.

"Nothing could be easier than to satisfy your curiosity," said Daumier. "You are not mistaken, friend Alexander ... that is your name, isn't it? Jock is here with us."

"Is he well?"

"Absolutely. He was never in better physical condition."

"How did he end up with you?"

"We abducted him. To be precise, not we, but I. Operation Abduction Jock was entrusted to me alone."

The investigator looked long and hard at Daumier. The director of the institute calmly withstood his stare. The end of Daumier's nose quivered.

"You abducted Wagner?" resumed Prokhorov. "Haven't I misheard you?"

"No, you haven't. That is what we called the operation: the forcible abduction of Jock."

"The word 'forcible' is superfluous," objected Prokhorov. "There is no such thing as a voluntary abduction. But the abduction operation in the twenty-fifth century?"

"You consider that in this sense our twenty-fifth century is worse than the fifteenth, when abductions were a daily practice?" inquired Daumier bitingly.

"I consider our century better than the

fifteenth!" said Prokhorov, working himself up into an even greater rage. "And that's why to me the term 'abduction' is a misnomer, an anachronism, sheer rubbish."

"Nevertheless, we abducted him," said the director politely. "Unfortunately, only that term gives an accurate definition of what happened. We probably didn't know that it is considered an anachronism and sheer rubbish."

The investigator's thoughts took a new turn. He had clearly reconciled himself to the anachronistic formula.

"You said, you had been entrusted with the abduction operation. By whom? And so your crime was the fruit of a collective plan, although you were the only direct perpetrator of it. Have I understood you correctly?"

"Listen, friends," said the director gently, "you are not really in the picture, and so all your questions are wide of the mark. Three quarters of them are altogether superfluous. Let me explain what we are doing here. Since Jock's disappearance has caused a stir and since you yourselves have adopted the ancient methods of breaking into forbidden territory, which I also regard as an anachronism, if not sheer silliness, then there is definitely no point in concealing from you what we are doing and why we needed Jock."

Prokhorov glanced inquiringly at Henry, who nodded without saying anything. Daumier smiled approvingly at Henry—in his own way: his eyes flashed and the tip of his nose quivered.

"And so, about our work the year before last," began Daumier as if delivering a lecture. "At that time, we were dealing with an astronavigational problem connected with the passage of a starship in the vicinity of a collapsing star... By the way, the subject of that work is of no importance. There were eighteen persons in our lab altogether, mainly mathematicians, and someone was impressed by the fact that when we were sitting in the old building, that is, this one, the calculations went faster than in the new blocks of the Space Problems Institute. We decided to check this observation. It was confirmed while we were working on another task. The problem was a difficult one and that it should have gone more easily here than in the new building was bound to become the focus of our attention. We asked ourselves a question, and I will ask you the same question: in what do the premises of the new building differ from our rooms here?"

He looked at Henry, who answered: "I also work in the Space Problems Institute." Daumier nodded in confirmation that he knew this. "In our building, all conveniences have been envisaged for scientific research. In particular, every office and lab is screened so that the neighbours should not disturb one another with noise or radiation from their machines."

"That's just it—screening!" exclaimed Daumier. "You've put your finger on the clue to solving the riddle, friend Henry! The rooms at the Space Problems Institute

guarantee total peace and quiet to everyone as we have established. You are well aware that there are methods of determining creative abilities. You yourself were checked by these methods and you were given assessments. All this is for individual research. But we have worked out methods of determining the creative abilities of a team, and they are as exact as those for the individual. And it gave our collective creative potential a rating of 9.4. Does that tell you anything, friends?"

"The fourth degree of a great talent," said Henry with mingled respect and astonishment. He had never yet heard of creative ability, a strictly individual phenomenon, being treated as a collective capacity.

"Exactly! Now take note of the peculiarities that impressed us. The first is this. Amongst us there were three persons with individual ratings of above 9.4. In particular, your humble servant, as they used to say in the old days, was given 9.8 points. But the average arithmetical rating of the team—I mean the simple adding up of our individual creative assessments—gave only 8.9. In other words, we as a whole should not have gone beyond the limits of a higher degree of simple talent, but we had come out of simple talent into great talent."

"Your team has evidently been chosen so that you inspire one another," observed Henry, who had been following Daumier's explanation with great interest.

"We thought so too. And we confirmed the hypothesis with a special experiment. We

invited a well-known ... however, I won't give his name, it is not a matter of the personality, but of the phenomenon. To put it briefly, the creative potential of this scientist was estimated at 10.6 points, a gigantic figure, is that not so?"

"The sixth grade of a unique talent. On the whole of Earth there are hardly ten scientists entitled to such a rating. I think I can guess who this might be."

"I'm sure you know him well. But what is important is something else. With his arrival, the creative potential of our team ought to have risen, by all accounts, but it fell. We couldn't stretch it beyond 9.1. This man had a unique talent, as his rating showed, yet he didn't inspire us, he damped us down. He was bringing us down. His presence was harmful to the team. And when we got rid of him and let him go back to his former individual existence, our creative potential rose to 9.4 again."

"I can't understand why you're telling us all this!" exclaimed the investigator. "We're supposed to be discussing Wagner, whom you have forcibly..."

"Wagner, exactly! Everything I'm saying has a direct bearing on Wagner. And so now to the second peculiarity that struck us. You already know about it: the distinction between screened and unscreened buildings. In the new building, our creative potential was 9.4, but in the old one, the one we are in now which has not been modernised, it is 10.1. We are changing for some reason from a highly

talented to a uniquely talented team. Here, for some reason, the mutual inspiration has been getting more intense. We have accounted for this as follows. Not only our chats and quarrels, but our very coexistence is increasing the creative potential. We affect one another with our cerebral emissions. Collectively we make up a single mental field, with each member contributing his own rays. We have checked this conclusion too. We reconstructed the building and screened it—not the rooms, isolating each staff member from the others, but all of us, taken together, from the outside world. And the result? The creative potential rocketed to 10.7."

"Getting close to genius!" commented Henry with a smile.

"Yes, if we accept, as is usual, that the genius grades are between eleven and twelve points. We also found that if one of the staff dropped out during work on a particular problem—let's say for a trip to town or absence on leave—this had a detrimental effect on the rating of our creative potential. We voluntarily agreed that while working on special problems, we would also introduce a special regime for ourselves. For us, a special regime means intensive spiritual exchange undisturbed by external factors. Protection from outer influences—visits, meetings with others, and so forth—becomes absolutely essential to us while we are forming a team. That was what gave rise to a regime that was covered by the ancient term 'system of

secrecy'. Incidentally, I have good news for you, friend Alexander. We shall soon complete the creation of a full-blown creative team and renounce secrecy. It would be ridiculous to make secret the content of our scientific work, would it not? Our programme itself is open, as in all the other institutes... But I am straying from the subject of choosing fellow workers. In continuing our self-exploration, we established that our creative potential was a vectoral magnitude. It varied during the solution of various problems. We showed up as a brilliant team during the solution of one task, but only as a team of average ability when we went over to another. We calculated for the team a common formula of creative potential and called it a 'genius matrix'. We soon found that for the solution of any problems, in order to avoid reducing the creative potential, we needed to remove certain minds from the team and introduce fresh ones. The mind which stimulated, in one case, a special sharpness of collective thinking, in another case could artificially dull the mental activity of the team, as I showed with the example of the famous scientist whose name I am not mentioning. We have one colleague who raises the potential of his group to a level of engineering genius, but encourages a general lack of poetic talent. The 'genius matrix' demanded frequent interchanging of the members with a change of the tasks being studied."

"So we now come to poor Jock," observed Henry. "As far as I understand, he

proved a useful member for your matrix, did he not?"

"A few more words before we come to Jock Wagner. We investigated many scientists to find out if they were suitable for our team. Needless to say, the investigation was confidential. Bad results could be damaging to self-esteem... The need to spare the peace of mind of talented scientists was also one of the reasons why we requested 'special secrecy' for ourselves. Incidentally, friend Henry, among those checked were you and your brother. Don't blush: if we didn't invite you to join us, it wasn't because you would have lowered our potential. It was simply that you and your brother with your colleagues make such a harmonious whole that the gain of transferring you to us would not have compensated for the loss incurred by disrupting your own work. Boyachek advised me to investigate you and your brother and confirmed our conclusion that you could be left in peace."

"I'm very glad he did," said Henry with relief. "For some reason, I'm not exactly thrilled at the idea of complementing someone to make up a genius."

"Not someone, but yourself also as the member of a collective that had become a team of genius. Now as to Jock, we came upon him by chance. We have in the lab an instrument that totals up individual cerebral emissions and defines their degree of compatibility with the creative potential of the team. The instrument showed a gigantic

suitability of Jock for us and us for Jock. We were, so to speak, created for one another. But we failed to convince Jock of this. He was, on the contrary, convinced that he was created for astrozoology. He informed us that he had dreamed of Mars since childhood and was not intending to exchange his beloved Martian deserts for the gardens of Earth which bored him to distraction. He sent us to the devil and threatened to brain anyone who tried to claim that his head was of any use for anything except observations of Martian pigsties. You know Jock and you can imagine how select his language was."

"And that was when you decided to abduct him?" inquired the investigator.

"What else could we do? He was flying to Mars. It was our last chance. I'm afraid you have only a vague idea of how important the presence of Jock Wagner is to us. Where for others there is the dim noise of uncertainty, for him there is an arena of sharply sounding surmises. Noise usually dulls inquisitiveness, but it only sharpens Jock's. The introduction of his creative capacities into our collective matrix boosted our potential to 11.3. On his own, as you probably know, he never went higher than 8.9. As a member of our team, he is almost equal to Newton, and that is what we, in our turn, mean to him."

"That is no justification. He should have joined you voluntarily, of his own free will. No sophistries can justify such an outrageous irregularity as a free man being seized, perhaps

tied up, torn away from his dear ones and friends, and transferred forcibly and for life to some kind of artificial barracks environment."

"Not for life, friend Prokhorov, certainly not for life. For a limited and precisely stipulated period sufficient for his self-verification."

"When does the stipulated period end? We wish to see Jock Wagner."

"His period of self-verification has already expired." Daumier jumped to his feet. "Come with me. You can talk to him in person."

## 5

Daumier removed his massive body on its thin legs with such agility that Prokhorov and Henry fell behind. Daumier waited for them at one of the doors and then invited them in.

Jock Wagner was sitting in a room full of apparatus.

He jumped up on seeing the newcomers, walked over to Henry and embraced him delightedly.

"I knew you'd come to get me out!" he exclaimed gratefully. "Only you and your brother could have done it!.. Did Ricci inform you about my disappearance?"

Daumier was sitting apart with his strange smile, wiggling his nose and watching the meeting between the friends.

Prokhorov formally offered his hand to Wagner.

"Investigator of the Expedition Department of the Space Directorate, Alexander Prokhorov. You may just call me Alexander. I'm handling the case of your abduction, since Mars comes under my department. We have just had a very painful conversation with the director of the Special Problems Institute, Daumier..."

Jock interrupted the investigator with an impatient, nervous gesture.

"Your conversation was relayed to all the labs. You can imagine how the staff in the other rooms burst their sides laughing. They're rascals, only too glad of a chance for a laugh."

"I'm glad to see you in good health and in a good mood, Jock," said Henry sincerely.

The investigator said with admonitory chilliness:

"May I take your statement that the institute's staff are all rascals to mean that..."

"Yes, just that! They're great lads. Henry, I was idiot enough to refuse to work for the institute! I'll never leave now. What problems, what research projects! And what a pity that you didn't come during the secret investigation; you would have been delighted if you had transferred to us... No, not just delighted, happy in the most shameless way! I shall inform Ricci that he and his Mars can go to hell! To hell!"

"Rascals, and great lads!" Prokhorov shrugged his shoulders. "An unusual way of presenting the facts."

"It's typical of Jock," objected Daumier cheerfully. "And he's exquisitely polite to

people he doesn't care for. May we consider our differences settled, friend Alexander?"

"If you have no objections, I shall make an official recording and we will back it up in person and thus put an end to the case of *the abducted astrozoologist, Jock Wagner.*"

Jock suddenly gripped the investigator by the hand and announced in a fit of inspiration:

"Paul, you must give Alexander a test! Take no notice of his acting like a fool; I suspect latent brain-power there!.. And then we need an iron curb on our wild flights of fancy. In short, a thinker with a fierce inner fire of pedantry. There's so much chaos in our ideas. I bet my bottom ruble that Prokhorov is precisely what we need right now."

Daumier looked inquiringly at Prokhorov.

"If I really should turn out to be useful..." he replied hesitantly. "To be honest, I'm fed up with my job as an investigator, it's so monotonous!.. In other words, please, I'm ready to be investigated!"

## SUPERCENTRE OF IMMORTALITY

### 1

"I've invited you, Henry, so that you can save me from a terrible danger!" said Franz, beginning what a minute earlier he had said was going to be his confession. "There are

plans afoot to assassinate me."

"Lie down and keep calm," said Henry mildly. "You're too restless. I'm no use as a doctor, but I think it's bad for you to wave your arms about like that."

"Oh, everything's bad for me just now!" groaned Franz. "You've no idea how restricted my life has become. A thin shell of living possibilities, a thin shell! One step out of line, one tiny deviation, and I'm doomed. Please lower the blind; the sun's shining outside and that's dangerous for me."

"Yes, it's become hard for you, Franz," said Henry sympathetically, returning from the window to his friend's bed. "By the way, what do the doctors say about your illness?"

"They're not saying anything at all. They shrug their shoulders. Even the most brilliant of them hasn't a notion of what's wrong with me. I'm the only one who knows what I'm ill with, because I created it myself. And it isn't even an illness, to be serious... Oh, Henry, please, raise the blind a bit, this half-light is killing!.. Not too much, not too much... That's it, thanks. I'm not going to hide anything from you, it's going to be a real confession. The fact is, Henry, that I'm a victim of immortality. You understand? My disease is immortality!"

"Don't despair, even so," said Henry carefully, and he lightly replaced the blanket, which had slipped down. "They've now learned to cope with all kinds of illnesses. I assure you that in a month's time you'll be as fit as a weightlifter breaking a record."

"Please don't talk so quickly, Henry. I get hammers ringing in my head when I hear someone talk too quickly. And don't talk too slowly either, that's even worse. Oh, Henry, it's become so hard, talking to people! I can only still talk to you, my good old friend; you're the only one I can trust. And only you can save me."

Henry was about to say that he would try to save his friend from any danger, even from immortality, but he realised just in time that Franz might not see the joke. He silently readjusted the blanket.

Franz grimaced wrily. He probably even had to keep quiet in a special way, but Henry was afraid of asking questions.

"And so you now know that I am ill with immortality," continued Franz. "Oh, it's a sweet disease, but so upsetting, so upsetting! Immortality leaves so few possibilities for living, if you only knew! And if only I had known earlier myself I might never have started the work that created immortality for me, had I foreseen the consequences. And I would have refused to let Lorenzo carry on with his research, instead of encouraging him as I did all those three years with such fatal rashness... But no, I would still go on with the research! Oh, it's so hard for me to talk, Henry!"

He fell silent, exhausted. To avoid upsetting him with a close scrutiny, Henry eyed him covertly. He and Franz hadn't met for two years. Even back in those days, Franz had not exactly boasted an iron constitution,

nor had he been particularly sociable. Skinny, sluggish and shy at school, he had been the same at university and in front of the students and his colleagues when he had acquired a reputation as a major researcher working on nerve cell activity. They used to say jokingly among his circle of friends, "Franz is studying how to synthesise life because nature hasn't given him much of it."

In the two years since Henry had last seen him, Franz had changed ominously. If someone had needed to demonstrate the case of a man finally wrecked by illness, Franz would have suited excellently. The naturally skinny Franz was now a mere wisp of a man, and the invariable lack of colour in his complexion had become a deathly pallor. But the morbidly brilliant eyes were intelligently watchful, something that Henry spotted at once and with some bewilderment: the intelligent look hardly matched the incoherent speech.

Franz guessed what Henry's feelings must be and he tried to give the weak smile on his lips a mocking twist.

"Yes, of course..." he whispered. "I forgot that I must sound as if I was raving. You'll realise how false that impression is in a few minutes... Just let me gather my strength first."

"Perhaps it would be better to talk later?" Henry gave his voice a tone of blithe indifference. "Truly, Franz, you'll recover, you'll get stronger... We're not in a hurry."

The sick man shook his head.

"I'm in a hurry. And I've asked you not to

talk so fast. It's awful the way you blurt one word out after another." He half-closed his eyes with a martyred expression, opened them again and said reproachfully, "You don't want to understand, Henry, or you don't believe me. There's no recovery from immortality, there's no convalescence. Please understand! One can only be deprived of immortality—and only with life, only with life! Immortality and life in me are indivisible. Henry, that's the source of the misfortunes that have taken up arms against me. Please listen very carefully to what I have to say."

"I am doing so," repeated Henry meekly.

At university, in spite of his sickliness, Franz was considered one of the ten best professors. He was a born lecturer. Soon his incoherent speech became a well-reasoned lecture. Henry soon found himself listening with absorption. He had been intending to feign keen interest so as not to upset his touchy friend. No such effort was needed; the interest arose of its own accord. If Franz had seriously thought of confessing, he had at least taken the trouble to clothe his confession in sound logical garb. Had there been a blackboard handy, he would have drawn schemes on it. But there was no board, and that was the only thing that hampered the sick man.

It all began when, three years previously, Franz Mravinsky was visited by Lorenzo Ngaga, a native South African and a brilliant expert doing research on chromosomes. He

came to the Capital to deliver a report about his work on the physics of cell division. Franz had a heated dispute with Lorenzo, and the hot-tempered Lorenzo called Franz a supreme example of a scientific idiot. Franz contemptuously charged him with lack of talent. The exchange of assessments did not, of course, take place in the conference hall, but in Franz's lab, at which Lorenzo called before the official debate. Having spoken their minds in the lab, both behaved during the debate with mutual politeness. They verbally bowed and scraped to each other so much that they were stared at with bewilderment. After the debate, Lorenzo called on Franz again.

"You're an obscurantist, friend Mravinsky," said Lorenzo with almost friendly politeness. "Because you don't understand the physical phenomena taking place in the division of chromosomes, you are denying their importance in general. Is that worthy of a real experimenter?"

"And you, friend Lorenzo, having discovered the tiny dependence of chromosome division on magnetic fields, are overexaggerating it," retorted Franz. "You are like a man who has studied the illumination of a lamp, but has forgotten about the hand that switches the lamp on and off. I have already explained to you that I have never met such a chump as you. I hope you are not going to force me to repeat myself."

"I've discovered a method of making a cell immortal!" insisted Lorenzo. "Why

are you attacking me so fiercely, Franz?"

"Who needs your immortal cell if the brain governing it dies? It's immortal in the test-tube and only in the test-tube, not in the body."

"And so, in your opinion, it's impossible to force the brain to govern the division of its own cells, as the instrument I have invented does?"

"For that, in addition to the brain centres already handling the functions of the organism, you must create another centre specially responsible for the absolute regeneration of all tissues. A kind of supercentre that ensures immortality. Maybe it will be created one day, and then man will acquire immortality. But there is no such supercentre in the brain so far."

"Listen, Franz, why shouldn't we grow such a centre?" suggested Lorenzo all of a sudden. "There isn't a man on this earth who has such a brilliant understanding of the physiology of the brain as you. And I hope you won't deny that no scientist today can compare with me for an understanding of cell division processes. Let's join forces!"

"We argued a little longer," recalled Franz with an unexpected gentleness that completely transformed his anguished face for a moment, "and the upshot of it was that Lorenzo transferred his African lab to the Capital. I must now tell you something about Lorenzo himself so that you will understand the subsequent tragedy. I'm not going to talk

about him as a scientist. He's a genius... Was a genius, rather. I've never known his equal for creative power of intellect. Needless to say that no one could have surpassed him. But he was a genius not only in his own specific sphere, he was uniquely, almost superhumanly versatile; he merely concentrated his gifts on one particular aspect. He could have been equally successful as a mathematician, or an astronomer, or a historian, or a linguist. But he wanted to be a biologist."

"We seem to have wandered off the point, Franz," commented Henry gently. "Perhaps, all the same..."

Franz stopped Henry with an impatient gesture. He wasn't even thinking of wandering off the point. He had a clearer idea of what to say, so let Henry keep quiet. No, there was no need to be so defiantly silent; Henry was compressing his lips too hard, and it was fearfully irritating! And so back to Lorenzo. Lorenzo set up his lab not far away. He often dropped in on Franz, they talked so much and covered all spheres of learning, all aspects of life. It was simply amazing how this Lorenzo Ngaga could take everything in his stride. But he was incapable of joint work. He proved unable to cooperate, he could only lead. He made pronouncements, but he did not prove. It soon became clear that their joint research would not work and there was a row brewing. The row might not have happened if the research had gone up a blind alley. But success was marked at once, and such an enormous, mind-boggling success

that the head reeled. And it proved too much for Lorenzo. There are many people who patiently endure failure, but there are few, very few who can bear a triumph. Nature had not provided Lorenzo with a braking system to ensure clear-headedness in the event of a major success.

"Did you discover the supercentre of immortality in the brain?" asked Henry in amazement.

No, they had not discovered the supercentre of immortality. It is impossible to discover what doesn't really exist. They had not discovered a supercentre, they had created one. There are fifteen thousand million cells in the human brain; only a thousandth part of them is active, the rest are in reserve. And without particular effort they had managed to take a hundred million unloaded cells out of the reserve and give them a new function—that of ensuring immortality in the organism. Franz worked on the isolation of these cells—he had studied the brain structure far more deeply than Lorenzo. But the adaptation of the selected cells to a new function was undertaken by Lorenzo.

At first, they operated with rabbits and hens. And each time, without a single exception, everything worked. Lorenzo and Franz both had in the lab hens and rabbits which had outlived their great-great-grandparents and which might even outlive their race, such were their built-in possibilities.

Then came the question of creating a

supercentre of immortality in the human brain.

"You agreed to be the guinea-pig to such an experiment, is that it?" guessed Henry.

No, it had all been quite different. Both simultaneously decided to be the subjects of the experiment, and each adapted himself without having recourse to the other. Lorenzo was the one to insist on this. Franz agreed, because the research had made such advances that they could operate on their own brains independently without opening up the cranium. No, Henry needn't look so surprised, there was nothing more irritating than unmeasured astonishment instead of attention! And would he please pull the blind down a little, it was awful the way the sun was shining in the garden. It wasn't shining into the room, but the mere thought that it was bright out there could drive a man mad. The technique of self-operation on the brain was too complicated, he could not dwell on it, he would do that tomorrow, at the session of the Academy of Sciences. Henry must be patient. And it wasn't the operation that mattered, but the fact that there were two operations: one of them, rational and farsighted, had been fully developed by Franz, but the other, distorted, contained Lorenzo's improvements—and just by improving he had proclaimed his monstrous creation.

"In other words, you mean that his brain operation went wrong and he failed to create a supercentre of immortality?" asked Henry in a matter-of-fact sort of way.

Franz grimaced with disgust. How primitive some people were, even the ones considered rational! The operation worked out by Lorenzo was a failure—and that was exactly why Franz did not accept it—but there could be no question of its not having created a supercentre of immortality. It created one as simply and reliably as the first operation. But it was the *kind* of immortality created that was the bone of contention!

"Henry, please, don't wave your arms about, it's awful when people wave their arms about for no reason. And don't writhe in your chair. Can't you sit still? I'm lying quietly here, not jumping about and getting on other people's nerves, so why can't my friends do likewise?"

"I'm sorry, I didn't mean it. So we have two operations to create supercentres? And two different kinds of immortality as a result?"

Yes, yes, at last Henry has grasped it! Two supercentres and two kinds of immortal existence—and so different, that they cannot even be related to one another! While still working with the flies, they discovered that there are two methods of preserving life, not just one. And each of them led to the rapid death of the organism under experiment.

At this point, Henry again could not refrain from another gesture of astonishment. Immortality leading to death? How was he to understand such a paradox? Franz did not see any paradox. Immortality created its own special demands on the environment.

In one case the scope of the external conditions in which immortality, so to speak, was effective was severely restricted. Mortal life did not function at high and low temperatures, under high pressure or in a vacuum, in powerful electric and gravitational fields, in a state of total immobility, or at enormous speeds... Immortal existence was even more at the mercy of external conditions. Immortality was achieved only within an immeasurably restricted range of living conditions.

"Look at me. Understand me," demanded Franz. "Put yourself in my position, Henry! I am now in theory immortal. I can exist without changing for millennia, for tens of millennia. That I have achieved. But my immortality is real only when the air temperature is not more than two degrees from twenty, the air pressure does not rise or fall by more than two percent, no one pushes me, no one makes me run, no one blinds me with too much light or torments me with darkness... Oh, how many *if*'s are needed for the immortal organism to function! I need special conditions, but if they are guaranteed, I shall live forever. And that is what matters: I shall live forever!"

"A living exhibit of an immortal organism existing only in hothouse conditions!" Henry was so horrified that he could not restrain himself. "How awful!"

His comment had less of an effect on Franz than was to be expected. Franz grinned. The smile seemed like a clumsily forced

grimace that did not accord with the tormented face. He would like to dwell on Henry's objection. What was the meaning of "hothouse conditions" and "artificial world"? The whole history of mankind could be reduced to the creation in the natural world of one's own artificial little world, the introduction into life of a hothouse environment. Fire, the gift of Prometheus, clothing, houses, space-suits, ships—did not all these provide us with conditions that did not exist in the natural world?.. What about our books, music, verse, dances, paintings and films? They were all part of an artificially created world, and without it, or outside it, we would have long been unable to exist! Who would dare to claim that the symphonies of Beethoven, the dramas of Shakespeare or the poems of Pushkin existed in nature of their own accord? No, find a more convincing objection; yours is rather weak, Henry! I am simply continuing the universally typical human tendency to create an artificial world. True, I am reducing the range of life-support conditions to razor-edge thinness, but I am bestowing immortality on mankind! Which is harder—to ensure a stabilised temperature in living accommodation or to make life eternal? And which is more important? The people on some planets never take off their space-suits, and yet they are on other planets, uncomfortable to live on, and not on their native Earth which is so comfortable and inadequate. It's not simple, it's not simple

at all for an immortal among mortals! He must always be in some kind of space-suit, in a cocoon of specially preset living conditions. But he's immortal nevertheless! He's immortal!

Such was the exultant cry with which Franz ended his passionate tirade. Henry was silent for some time before finally speaking.

"I think I understand. Immortality in a thin shell of life-support systems. But what did Lorenzo do?"

Franz's face registered suffering. He seemed about to burst into tears. Lorenzo rebelled against the narrowing of the range of life-support conditions. Like Henry, he cursed as hothouse the existence obtained in the experiments on hens. He demanded a widening and not a narrowing of the possibilities. He wanted an existence as wide open as the savanna, as boundless as the sea; thin shells didn't suit him at all. And he got what he wanted, the fool! Two weeks ago, he sat inhaling the sulphur fumes on the rim of Etna for three hours and didn't even catch cold. But before that, he fasted for four weeks and drank nothing for a week, and it was all like water off a duck's back. He smashed his left thumb with a stone; the wound closed up in an hour, and a day later the thumb was completely healed. He boasted that he could take out an eye and put it back in again, and the eye would see. If he didn't put it back in again, a new one would grow in its place. True, he hadn't tried that experiment out on himself yet, but it had certainly worked with the hens.

"But that's magnificent!" exclaimed Henry, unable to restrain his delight.

Franz looked at him with infinite sorrow. That was the verdict of an ignoramus for you—magnificent! What was magnificent? What was the price to be paid for magnificence? Was the price perhaps so monstrously great that it obliterated all the petty gains? Would not the tiny acquisitions of life incur losses of a different kind and far more important? And if seen from this angle, then would not Franz's visible immortality prove higher, immeasurably higher than Lorenzo's brutish existence? The fact was that Lorenzo paid for his successes, so impressive at a superficial glance, with a progressive deterioration of the intellect! Yes, yes, that was the sensational outcome, continued Franz, allowing Henry a moment to take in the full force of his words. Lorenzo, the great master of operations on the cell, knew little about the general structure of the brain. He was deaf to the higher harmony that subordinates to itself that majestic combination into one whole of fifteen thousand million cells. The brain to Lorenzo was no more than one of the tissues of the organism, an organ equal to dozens of others. By heavily reinforcing the brain centres in control of the organism's defence mechanism, he also weakened the intellectual field. He upset the balance in precisely what constitutes the highest function of the brain, its ability to generate thought. An immortal idiot—that was the crowning point of Lorenzo's creation. Something that

existed, ate and was stable, but was totally devoid of reason!

"You didn't have any qualms about upsetting the balance of life either," commented Henry warily. "Clearly, you can't achieve immortality without violating the possibilities of existence. You only chose a different means of upsetting the natural proportions of life, if I can put it like that."

Yes, it can be put like that! Perfectly correct: a different means of upsetting the natural proportions of life. In Franz's lab, the immortal cockerel Keshka was living under a glass hood in what could only be described as hothouse conditions. Keshka was going to live for thousands of years if the calorifers, air-conditioners and bakery delivering white bread didn't break down. Keshka's mind was exceptionally sharp. He could already cope with the four arithmetical operations: he could perform subtraction excellently, he took great pleasure in multiplication, and the joy with which he divided was almost physical. Division was his hobby. The educational syllabus prescribed for Keshka included the theory of polygons, logarithms and Newton's binomial theorem, but that was all in the future. In a hundred years, Keshka would become an outstanding mathematician, far ahead of such famous names as Descartes, Hauss and Ngoro. Thus is the mind sharpened when immortality is created by restricting the range of life-support conditions.

"I knew beforehand that you wouldn't

believe me, Henry," said Franz, becoming more and more worked up, "so I thought of an experiment that might convince you. The fact is that I've sharpened my own mental faculties enormously. You know perfectly well that I couldn't stand maths."

"You didn't work at it, let's put it that way."

"Let's put it precisely: I loathed it. And I loathed it because I hadn't the talent for it. When I was preparing for this talk with you, I looked through the report you and Roy made on your last job. Under Academician Thomson you are developing a gravitational energy accumulator, isn't that right? You'd solved the problem of concentrating a field of attraction, but you couldn't find a way of releasing it gradually, without an explosion. Am I right? What you have to find, in your own words, is a slowly opening tap from the gravitational basin. When I read your article, I instantly found the answer. Write it down."

Rather than argue with the sick man, Henry obediently fished out his notebook.

"I have a high opinion of you and your intellect," said Franz, while Henry was studying the note he had made, "but it isn't so good that you could solve my problem straight off. You can cudgel your brains over it later. Let me have a rest. I'm tired. And open the blinds a little way, the sun's gone behind the clouds at last. I only feel well during the first few minutes after sunset; it is so unusual, Henry. Sit still and keep quiet for a while, please."

Franz closed his eyes and lay for three minutes without stirring. Henry gently opened the blinds and tiptoed back to his chair. Only now was he able to see that Franz's room was oval, without any sharp edges and corners. The floors curved smoothly up into the walls, the ceiling was joined to the walls by similar curves and the joins between wall and wall were virtually invisible since they had been moulded so smoothly. The furniture matched the room, being rounded and smoothly curved. Franz was clearly unable to tolerate straight lines. "There aren't any curves in his reasoning either," thought Henry. "He resolves in his thought the sharpness that he now finds so detestable."

"You haven't forgotten what I asked you to come for, have you?" asked Franz, opening his eyes.

"Of course not," said Henry hastily. "There are plans afoot to assassinate you and you want me to save your life. I would guess that the danger comes from Lorenzo."

Franz nodded weakly. The dim light flooded the room through the only window. He had not disclosed all his secrets; he was approaching the last one. The disparity between the methods of creating immortality was not limited to stability of corporeal being and sharpness of intellect. The disparity had taken a tragic step forward. Franz's immortals were physically incompatible with Lorenzo's. To be more exact, not physically, but chemically. The structure of their cells had undergone such astonishing

changes, that contact resulted in violent reactions, like sodium and water or gunpowder and flame.

"It seems incredible, but it's a fact," said Franz with agitation. It first became clear when Lorenzo wanted to obtain descendants from his immortal cock Vaska by mating him with Franz's immortal hen Katenka. Vaska was a thug, a screecher and a troublemaker, while Katenka was a thin, gentle little soul. As soon as Vaska was admitted into the transparent cube in which Katenka was preserving her immortality, he rushed straight at her and jumped on to her back. There was an explosion, a column of flame shot up, the cube was blown to pieces and a cloud of hot dust—all that remained of the incinerated pair—settled on Franz and Lorenzo.

"Franz, are you certain there were no other causes of the accident?"

"Absolutely. Lorenzo with his weakening intellect was incapable of understanding this tragic truth, but it was obvious to me. I would have confirmed it with further experiments by taking one or two more immortals from Lorenzo, but to be honest, I'm afraid to touch them."

"And with good reason if you are chemically incompatible, thanks to ... thanks to..."

"Thanks to the different structure of our immortality. I can now finally formulate my request. Tomorrow I'm making a report on our work at a session of the Academy of Sciences. Lorenzo is speaking after me—if he's capable of it: as I've told you, his intel-

lect is deteriorating day by day. The blockhead doesn't understand how dangerous it might be even to come into contact with me. I'm terrified that he'll try to shake hands, or slap me on the shoulder. He loves these vulgar gestures. Protect me from him, Henry! Push him away if he tries to get near me. Can you do that?"

"Oh, undoubtedly!" said Henry. "You may be assured, Franz, that I shall come to the academy before anyone else and I'll try to safeguard you from Lorenzo."

## 2

"I was sure from the very start that Franz was out of his mind," said Roy thoughtfully. "Anyone who had anything to do with him towards the end noticed a progressive abnormality. There's no need to discuss Lorenzo Ngaga. He was described to me as a crazy and rude, a talented experimenter, but nothing more. In this way, questioning confirmed the initial impression. But, you know, there's one circumstance that baffles me."

"Is it to do with solving the gravity riddle?"

"Yes, Henry. I showed Thomson the formula for the 'gravity tap' that you brought from Franz. Thomson is shaken rigid. That was how he put it himself."

"Ivan is a very engaging fellow."

"But he never overexaggerates. He says Franz's solution is brilliant. He says that you and I must immediately try and find a con-

structive formulation for Franz's idea."

"Will you be at the session tomorrow?"

"I'll be late for the opening. But I won't miss Franz's report."

Henry arrived earlier than promised. Few had been invited. He strolled round the hall of the History of Civilisation, it was his favourite one, full of statues and pictures. Henry, as it were, greeted all these famous people who had existed in real life and who had been dreamed up so vividly that they had become more real than many of those existing now. In the corner of the great travellers, he stood for a while in front of the statues of Odysseus, Columbus and Don Quixote. Columbus was masterfully pointing into the distance, Odysseus was looking round him with fear and joy, as if he had just seen something captivating and terrifying while Don Quixote was amiably holding out a hand innocent of its iron gauntlet. Custom demanded that visitors should shake the noble knight's hand, and Henry did so.

Thomson hurried by; he was always in a rush, as if to a fire, but when he spotted Henry, he slowed down.

"The devil knows what it is!" he shouted excitedly. "As for me, I haven't slept all night! Such finds, such finds! I'm expecting sensational news today as well!"

Henry guessed that Thomson had not slept all night because of the discoveries he had seen latent in Franz's gravity formula.

"Today we are expected by..." Henry was going to say.

But Thomson was already rushing away; he always preferred saying his piece rather than listening to others.

The meeting with Thomson reminded Henry that he could miss Franz's arrival. He hastened to the exit. Aircabs were touching down one after another on the square, and the academicians and invited guests were alighting from them. Albert Boyachek, President of the Academy of Sciences, appeared among the crowd of people climbing the outer staircase. Henry tried not to let the old scientist notice him. Boyachek might call him over and would be glad to have a chat with him, but a conversation could prevent Henry from keeping watch on the entrance.

Franz arrived in an ancient electromobile with comforts long out of fashion—the spacious cabin of the ancient vehicle was fitted with air-conditioners and filters. The autodriver took the electromobile right up to the entrance, threw open the doors and obligingly pushed out the levers to help Franz alight. Franz was wrapped in a strange suit which inexplicably combined a fur coat and a space-suit. Only the beaky nose poked out from under the hat; the cheeks were covered with a transparent shield.

Franz groaned and offered his hand to Henry.

"Oh, what a hard trip I had! Did you notice the temperature in the hall? I've asked for it to be kept steady at twenty."

"And it's being kept at exactly twenty," Henry assured him.

He helped Franz to take his things off and escorted him into the hall, where they sat down side by side. The temperature suited Franz, but everything else annoyed him. He complained that he was being wounded by the intolerable angularity of the decor and by the even more intolerable angularity of the furniture: there were horrifying straight lines everywhere which, to make matters worse, intersected to forming sharp surfaces. He was also tormented by the colours, which were too varied: in one room the walls were green with a white ceiling, a yellow floor and cream doors, in others there was an even more chaotic combination of colours, and in the conference hall on top of all this mish-mash of colours had been added crimson curtains and gold candelabra. As he listened sympathetically to these complaints, Henry saw that Franz was suffering most of all from the bright light flooding the hall. Franz put on dark glasses so that he could look round more freely and greet his acquaintances, but it brought him no relief.

"I realise it's funny to you," he said with resigned humility, and there was such despair in his voice that Henry felt so sorry for him that it hurt. "But what's driving me out of my mind is that if I take off these glasses, I'll be blinded by that glaring light again. It's so painful to know that agonising blaze is watching out for me everywhere."

Boyachek appeared on a stage above the presidium table. The president raised his hand to appeal for silence.

"We've had occasion to hear some amazing announcements in this hall," began the president, "but today you are going to hear about a discovery that will startle you all. The dream of immortality has always been one of man's most captivating fantasies. We are now going to learn how it is possible to transform the dream of eternal life into reality. Two of our well-known scientists, Franz Mravinsky and Lorenzo Ngaga, are going to report of their work on the creation of immortality. Ngaga has been delayed, for some reason, but friend Mravinsky may come on to the platform."

"Escort me up there and stay close to me," whispered Franz as he stood up.

Henry solicitously supported him by the arm as they walked over to the presidium table. Roy went hastily through the open door and nodded a welcome to Franz. Lorenzo appeared behind Roy's back. Franz groaned miserably and convulsively pressed closer to Henry. The blank face of the second immortal showed neither thought nor feeling; the bright, wildly cheerful eyes were fixed on the assembly.

"Hi, lads!" bellowed Lorenzo in a deafening voice. His glance fell on Franz, who was cringing with fear. Lorenzo uttered an even more ecstatic roar: "Greetings, friend!"

"Hold him, Roy, hold him!" shouted Henry.

Roy rushed in between Lorenzo and Franz, but promptly recoiled to the wall, so violent was the shove that Lorenzo gave

him. Henry tried to lead Franz away, but his knees buckled under him and he clutched at the back of the chair to prevent himself from falling. Henry leapt forward to shield Franz, but collided with Lorenzo's fist and crashed to the floor.

"Weaklings!" yelled Lorenzo exultantly. "What can you do against an immortal! Franz, let's embrace!"

Henry had just jumped to his feet again when Lorenzo came into contact with Franz. Ngaga merely put out his hand in greeting, but Franz staggered back in time and Lorenzo gripped his friend by the shoulder. A heart-rending wail from Franz and a startled roar from Lorenzo were drowned by the roaring column of flame that shot up where they were standing. The terrified scientists rushed in all directions, showered with falling and rapidly dying tongues of fire and ashes. Neither of the two immortals existed any more, but it seemed to all present that their despairing voices had burst out of the flames and were still echoing in the hall.

The shock wave threw Henry down again. Roy rushed to his brother and helped him to his feet. Henry hurried to the place of the disaster. The cloud of ashes that had shot up to the ceiling was gradually settling. Boyachek approached, staring in horror at the dying blaze. The old scientist was terribly pale, his hands were shaking and his lips were scarcely moving. After him hastened the pale Thomson.

"What a climax!" whispered Boyachek

almost inaudibly. "What an appalling climax!"

He bent over, cautiously touched a scrap of unscorched clothing, again straightened up and looked in despair at the dejected brothers and the frowning Thomson.

"The immortals perished in front of our eyes!" said the president sadly to Thomson. "And we mortals couldn't help them, we couldn't help them in any way at all! We all had such hopes of their research! And now look at the climax!"

## A HEAVY DROP OF VANITY

### 1

Roy, of course, wouldn't have agreed to tackle the mystery of Richard Plachek's death if he hadn't been Armand's friend. Social Order Control in the Capital had ideally equipped labs at its disposal and it was their duty to investigate the circumstances of any person's death. Sometimes Roy and Henry helped the investigative labs, but only when there had been some kind of strange physical phenomenon which their lab staff could not explain. In Roy's opinion, Plachek's suicide didn't come into that category.

On the other hand, Roy's assistant Armand, who had kept vigil for three days at Plachek's bedside, when the doctors were fighting for

his life, was so depressed that Roy wanted to help him. Back in their own lab, where the brothers were preparing for the next experiment, Armand sat at the control panel staring listlessly at the notes from the previous day's work. Roy realised that Armand couldn't see a single number.

Roy took him by the arm and drew him across to the settee.

"Let's have a talk," said Roy. "I don't intend to try and console you. Death is death. Richard himself wanted to leave this life."

Armand shook his head.

"No, he didn't, Roy. I knew Richard well. He was the most life-loving of all my friends."

"As far as I know, Richard said, 'This is the end of me!', injected some kind of drug into his ear and died."

"He lost consciousness, Roy."

"Yes, I know that he was in a state of delirium for several days. The poison worked slowly."

"Was it really poison?" said Armand thoughtfully. "I've been torturing myself for days with the same question: was it really poison?"

Roy shrugged his shoulders.

"It's as easy as pie to find that out. Has any of the poison been preserved?"

"A whole ampoule."

"It ought to be analysed."

"They've done that, of course."

"And the result?"

"A perfectly harmless chemical. True, the molecular structure is very complex,

but that's secondary, since it's been proved that Richard's preparation is non-toxic."

"What did they use for the control experiments?"

"Animals: dogs, rabbits, monkeys..."

"What's harmless to an animal might well prove deadly for a human being."

Armand looked strangely at Roy.

"They also tried the stuff out on a human being."

"Whom? You mean to say Plachek's assistant decided..."

"No. I did. Yesterday evening I poured a drop of Richard's preparation into my own ear."

"You're crazy. When will you ever learn not to use yourself as a guinea-pig for way-out experiments! Anyway, what was the result?"

"I'm alive, as you can see."

"Half-alive. I've never seen you looking so listless."

"In any case, it's not the result of what I did. The drug is completely harmless. To me, at least."

"But it caused Richard's death. You're not going to deny that, are you?"

"No. And here's the riddle. Why could a substance harmless to others be fatal to Richard? Why did he take it? What was he trying to achieve?"

Roy became thoughtful.

"As far as I understand, you don't believe that Richard committed suicide, isn't that so?"

"I simply know there wasn't any suicide."

"A bold hypothesis! It contradicts the medical findings."

"The medical findings are based on a plot of Richard's actions: he said so-and-so, he did so-and-so, and the result was so-and-so. But that's the externals. I'm interested in the essence."

"The essence is far from always contradicting the externals."

"It does in Richard's case. Everything in me cries out against the idea of Richard having taken his own life."

"You were saying that he loved life and so on. Tragic situations occur when even those who love life lay hands on themselves."

"There was no such situation. I'll tell you about the last time I met Richard. I was strolling in the park with Lina, when Richard hurried past. He was always in a hurry, as you know. I called him and he came up to us. He was terribly overwrought."

"I didn't know him well, but as far as I remember this was his usual state of mind. He was an amazingly unbalanced person."

"He was in a quite exceptional state of mind that day. He was triumphant. He happily announced that in the next few days he was going to set up an experiment that would refute all the ideas about man's intellectual capacities. I asked him if he was intending to astonish us with a new-found talent in himself. I had in mind the remarkable achievement when, after three months of seclusion, he suddenly turned up as a polyglot. It was, of course, staggering."

"It's possible in three months of intensive work, given certain known aptitudes, to learn several languages."

"I've known Richard since childhood. No one ever noticed him as having exceptional linguistic abilities. And he learned not several, but exactly ten languages, and he didn't simply learn them, he became an authority on them. His success was too unexpected and too big."

"Didn't he tell you about the experiment he was going to set up?"

"He didn't like talking about his research work. He lost interest in it when people found out what he was doing. No doubt this was because he was terribly vain. He wanted to impress, to shine, to be Number One wherever he was. 'Look at me, aren't I a clever fellow!' was his theme-song, even in his official reports. He regarded himself as a scientific genius and used to get very upset if he realised that not everybody believed it."

"His acquaintances were not particularly fond of him, I suppose."

"Few were so much loved. He gave enthusiastic help to anyone who asked for it, was delighted to pass on interesting ideas, and was noisily delighted if a friend's work was going well. To him, it was sheer bliss to be thanked with, 'If it hadn't been for you...' His vanity was strange: excessive, but not selfish. I would even say it was generous."

"He was studying microemissions of the brain cells, if I'm not mistaken, wasn't he?"

"Yes. He started taking an interest in microemissions when they'd only just been discovered. And he was very annoyed that someone else discovered the screening effect of the skull. He heatedly claimed it as his own discovery by rights; he'd just been too late in publishing the results and researchers at the Brain Institute had beaten him to it."

Roy thought for a moment and went on to his next question.

"So you think there was no suicide, but there was..."

"Yes, Roy. Richard experimented on himself. And the experiment proved fatal."

"An unsuccessful try-out... It's a long time since I heard of people trying out dangerous experiments on themselves in our labs. And one more thing, Armand. Before he died, Richard should have realised that something had gone wrong and he should have at least left a warning to prevent someone repeating a fatal mistake."

"There you are, Roy. You've hit on what's been worrying me. Richard was in a delirium. But his delirium was joyful. He was rejoicing as he died. He imagined he'd achieved what he wanted. He kept saying, 'What a success! What a success!' He never even suspected there'd been a disaster. He imagined himself to be a mathematician. He was developing mathematical theories in his delirium. The visions of his brain have been recorded, but the mathematicians found nothing of interest in them. The mathematical ravings were interrupted by hoarse shouts of, 'What a

success!' And there was such ecstasy in them, Roy!"

"Interesting. Very interesting, in fact! You've finally convinced me. Plachek's death is a mystery. Shouldn't we take it on, perhaps?"

Armand looked gratefully at Roy.

"Shall we co-opt Henry too?"

"Why? He's not capable of splitting himself up between two problems. Let him carry on with his gravity energy accumulators. Please ask for all material on Plachek's work and the circumstances connected with his death."

## 2

Roy found nothing of interest in Plachek's ravings before he died: chaotic visions, a confusion of curves, scraps of formulae, geometrical figures and bodies, or, to be more precise, fragments of geometrical figures and bodies tumbling after one another in wild disarray. The experts who deciphered these feverish images pointed out that Plachek seemed to be trying to make sense of several geometrical problems, but his knowledge was thin and his solutions were as elementary as those of a schoolboy. The typical ravings of a sick man, as the experts pointed out.

Roy agreed with them when he looked at the records of the visions. He merely noted for his own benefit that there was one surprising thing about the pictures of the delirium: they were all mathematical.

"Plachek's ravings remind me of a talking horse," said Roy to Armand. "The most astonishing thing about a talking horse is not what it's saying, but the mere fact that it's talking. As far as I remember, Richard wasn't interested in mathematics, was he?"

"He couldn't bear maths," confirmed Armand. "He said that mathematics revolted him. Of course, he had as much knowledge of the subject as a neurophysiologist needs, but that was as far as it went."

Roy was considerably more interested in Plachek's reports on the work in his lab. It was all concerned with the microemissions of the brain cells. Plachek himself didn't discover the screening effect of the skull; this was done before him, but he had studied in detail precisely which rays were reflected from the inner surface of the cranium and how the waves generated by the brain escape unimpeded into space. The brain in Plachek's reports was a chaos of electromagnetic radiations, a mass of waves, whereas the skull filtered these waves and released them in a more or less ordered manner.

Roy particularly liked the theory of the eyes worked out in detail by Plachek. Richard regarded the eyes not so much as organs of sight, as canals along which the brain radiations forced their way outside without being controlled in any way by the cranium with its filtering effect. The eyes—and the ears too, but to a lesser degree—were described as vents for the radiation pressing on the brain, like windows through which the inner tur-

moil of thought was revealed. Plachek was trying to prove that it was possible to exchange any information with the eyes, especially if those talking with their eyes were furnished with special amplifiers.

One of the reports described the scheme of an instrument that determined from the eyes not only a man's thoughts, but his speciality, the extent and nature of his knowledge, and his prospects in his chosen field. In an addendum to his account, Plachek pointed out that a commission of experts had rejected his instrument as unreliable. Experts demanded absolute perfection immediately. There was, though, a viable idea in Plachek's proposition, and it was typical of Plachek's scientific interests and methods of work. And just now, this was what mattered most to Roy.

"Let's talk to Plachek's assistant," said Roy when he had studied the material obtained for him. "What's his name?"

"Karl Klausen," replied Armand and warned him, "Karl is a difficult man to get on with and untalkative. You have to drag an explanation out of him with pincers. But Richard used to say that he had never known anyone so easy to work with. I won't go with you. I feel bad in Richard's lab."

After only a ten-minute chat with Klausen, Roy realised why Plachek had found him easy to work with. Corpulent, flabby, slow-moving, he was one of those people endowed by nature with a total lack of curiosity. He was, evidently, an ideal assis-

tant and no more. He calmly assured Roy that he was solely interested in carrying out Plachek's tasks as accurately as possible without questioning their purpose.

"Richard lost his temper when he was asked about the why's and the wherefore's. He could shout too. I don't like it at all when people shout."

A portrait of Plachek hung over the desk on the laboratory wall: a young man with a cheerful grin on his face, small, shrewd eyes, a tiny nose, a rounded chin, and huge protruding ears so out of proportion with his head that they looked as if they had been glued on and didn't really belong to him at all. A mere glance at the portrait was enough to make it clear that this man's physical imperfections caused him no grief.

A small instrument hung under the portrait: it consisted of an indicator scale with divisions from one to a hundred, a spool of recording tape, a dial with an indicator needle, a pen, a small screen and a tuning plug-board.

"What's that gadget?" asked Roy.

"A high-frequency talent-meter," said Klausen calmly.

Roy turned and looked at him in astonishment.

"I didn't quite catch that. A talent-meter, you said?"

Klausen shrugged his shoulders.

"What's so surprising? The design's elementary. Go up and look at the screen. While you're doing it, the instrument regis-

ters your encephalo-characteristics: field of interests, depth, breadth, intensity of..."

"... thinking capacity?"

"What else? And after the analysis, which is recorded on the tape, the needle will point to who you are. Richard used his own range of classification, ten estimates, each with ten degrees."

On the scale, Roy read the names over each of the ten intervals:

*Elementary fool*
*Complacent fool*
*Common untalented*
*Aggressive untalented*
*Rank-and-file mediocrity*
*Selective ability*
*General ability*
*Gifted*
*Talented*
*Genius*

Roy laughed and shook his head.

"An interesting classification! And did many people agree to let themselves be tested? The names alone are enough to frighten anyone. Too much of the scale is taken up with fools and untalented people."

"No fools came here," objected Klausen calmly. "They all considered themselves talented, if not geniuses. And they didn't usually know that they were being analysed while they studied the instrument."

"When did they know the results?"

"The analysis wasn't disclosed immediately.

You have already been tested, for example, but the needle won't move until I switch on the summarising device. True, there was no summariser in the first model and this led to unpleasantness. Richard was once visited by a friend from the Institute of Space Journalism who wanted to be analysed. We spent the next two days collecting up the bits and pieces of the instrument. In the second model, Richard made design allowances for the frailties of human nature."

Roy wanted to know his own assessment. The needle pointed to the eighth degree of general ability. Roy expressed his total satisfaction. Klausen had the second degree of selective ability, and he considered it perfectly fair. Roy asked if he could take the talent-meter back to his lab to familiarise himself with it more thoroughly. Klausen had no objection to the instrument being examined and he handed Roy a detailed circuit diagram drawn by Plachek himself. Roy wondered whether Plachek used the talent-meter for self-analysis. Klausen replied that Plachek was completely absorbed in the instrument. Not a day passed without him spending at least an hour tinkering with the meter.

"Did he know his own rating?"

"Of course."

"Was he satisfied with it?"

"With them, not it. He had many assessments."

"What d'you mean?"

"He investigated every vector of his own abilities. You know, after all, that he tried

out all his experiments on himself. And every experiment had to change something in him. He could sit before the meter all day long."

"What classification did the meter give him?"

"He didn't usually get higher than the ninth degree of giftedness, and he never once ended up among the mediocrities. It may be that this assessment annoyed him, but he tried not to let it show. He used to say that the reproaches should be forwarded to his father and mother, who had not tried hard enough to endow him with genius. He didn't lose heart. He boasted that he would take everyone by surprise. He was working out the only correct theory of greatness, to use his own words. I didn't go into his theories myself, I had enough of my own to do."

"You've just said that 'he didn't usually get higher than the ninth degree of giftedness'. Were there exceptions to this?"

"Once he reached the seventh degree of talent. He looked very depressed that day."

"Depressed? He boosted his capacities to that extent and was depressed?"

"Well, you see, he was hoping to reach at least the first stage of genius. He said that the experiment had been set up irreproachably and the result ought to be brilliant. But it wasn't. He was so upset that he took two-weeks' leave."

"What was the gist of the experiment?"

"I never went into the details of his work. When he told me about it himself, I tried to

remember as little as possible. I felt more at peace that way. But he only made out his reports when the research was completed. He couldn't bear working diaries. They would have included his mistakes. He thought this degrading."

"Haven't you remembered anything at all?"

"I remember him turning himself into a polyglot at the time. Arabic, English, Chinese, Swahili, Hindi... He was absolutely fluent in all live languages. But he didn't get higher than 'talented', I would have been annoyed in his place too. My drugs, by the way, were meticulously synthesised, I never let myself deviate from the prescription. Richard said at the time: 'It's not your fault, it's mine!' He nearly wept."

"What drugs did you synthesise for him?"

"Whatever he ordered. I still have my working diaries. Unlike him, I wrote everything down. If you want to study them..."

"Yes, please. And so you synthesised the chemical preparations that he ordered. What determined his orders? Why did he want one thing and not another?"

"I don't know. He'd have been furious if I'd taken it into my head to ask him why he needed that particular one. I only know that he put in months of work before giving me an order. He calculated, drew, analysed curves... Nine tenths of his time was taken up by working out the order for a new preparation. Testing it was comparatively quick."

"How was the testing done?"

"First, Richard used the analysers to make sure that the preparation conformed to the order. It had to be synthesised five or six times over before he was satisfied. It was tough going. When the checking was finished and he sat down to do the calculations for a new preparation, I could take a breath."

"Let's assume he was satisfied with the chemical compound you'd synthesised. What did he do with it?"

"What d'you mean, what did he do with it? He took it!"

"And what does that mean—took it?"

"He injected it into his brain via the ear or put it as drops into his eyes."

"The same as he did in the experiment that killed him?"

"He always took drugs the same way. I don't remember him ever changing it."

"So there was nothing untoward in the last experiment. You deny that there was an attempt at suicide."

"What suicide? It was just an ordinary experiment."

"Ordinary experiments don't usually end in the death of the experimenter. D'you know the conclusions of the medical experts? Plachek's death was caused by poison being injected into his brain and the poison was synthesised by you!"

Klausen stared glumly into a corner of the lab.

"I never synthesised any poison. Richard never even thought about poisons."

"The experts quote him saying to you,

'I shall cease to exist', before he took the poison."

"Preparation, not poison! The words are his though, true."

"That statement is being taken as an expression of suicidal intentions."

"Rubbish! He was always saying something of the kind. When he was taking the linguistic preparation, he said, 'You won't recognise me soon. I'm going to be born again as a different person.' Before a try-out, he always saw things through rose-tinted spectacles. If it didn't work out as planned, he would mutter in despair, 'Me again, me again!' Once he sighed and said, 'Knowledge is not yet talent.' "

"Can the words 'me again' be seen as expressing his desire to remake himself and his disappointment that he was still the same?"

"He didn't stay the same. He always changed in some way. That's why he set up the experiments—to change himself. He was trying to turn himself into a genius."

"Trying to turn himself into a genius? Excellently put. And the preparations you synthesised were to restructure the bonds of his brain cells, to stimulate other, more intensive emissions inside the cranium. Isn't that so?"

"Possibly. I used to think that my preparations were reservoirs of useful information, that Richard had developed a means of recording whole sciences at molecular level. That's what I called my work: the synthe-

sis of information drops. Once I told Richard about my guesses. He made fun of me at first, but then he lost his temper. "You're a dolt, Karl,' he shouted. 'I can't understand why the talent-meter gave you any aptitudes. You're looking at the means as an end!' "

"Thanks, Karl," said Roy as he shook Klausen's hand. "For some reason, Armand thinks you're unsociable. I've formed a different impression. You've given a good explanation of everything essential to do with the death of Richard Plachek."

3

Roy handed over the talent-meter and two of Klausen's preparations to Armand, who inquired what impression Roy had formed of Plachek's death. Roy said that suicide was out of the question. It seemed that Plachek had invented a new means of absorbing knowledge by injecting himself with special chemical compounds. He hadn't been satisfied with his invention. He had evidently set himself a much more difficult objective than the replacement of many years in school with the injection into the brain of whole sciences in one dose. He was aiming to improve the intellectual powers of man. And before all else, his own.

"He had no intention of settling for anything less than genius," said Roy with a smile. "We must find out what he achieved on this road and what mistakes he made. He didn't write an account before his death

and he didn't keep working diaries."

"He was at the mercy of his vanity, of course," agreed Armand. "But on the other hand, he was a most careful experimenter. You can't even think of turning your own organism into a testing ground without exemplary prudence. How many times did he experiment on himself without ever making a mistake!"

"He made a mistake once, nevertheless. Armand, I think you'd better drop the other work in our lab for a time."

...Armand spent a week working on Plachek's instrument and Klausen's preparations. When he had finished his investigation, Roy rang up Henry. Henry had not been a friend of Richard's, but he could not remain unmoved by the strange circumstances of Plachek's death.

"Richard had indeed worked out a method of recording scientific information at molecular level," reported Armand. "The molecular structure of the first substance was worked out so ingeniously that it retains a whole library of linguistic information in its intra-molecular bonds."

He put two schemes down on the desk. One showed the bonds in a molecule of the preparation: each of the bonds expressing some basic element of language in a special code. Plachek had successfully recorded in molecules a basic vocabulary of ten languages, so enormous was the number of variants of conditions of each molecule. Armand drew

the brothers' attention to the fact that the oscillations of the molecules in the preparation coincided with the cell oscillations of Plachek's brain.

"That's understandable," said Roy. "If there was no coincidence, then the brain could not be enriched with fresh knowledge. The whole crux of the matter is in this coincidence."

"He had to study his own brain with diabolical thoroughness in order to work out a preparation that was so perfectly in resonance with him," continued Armand. "It's even more impressive that Klausen was able to synthesise such a complex chemical compound."

Henry joined in the conversation.

"There is an inherent defect in this interesting idea of Plachek's. First, the augmentation of knowledge is not equivalent to the appearance of talent which, incidentally, he admitted in a conversation with Klausen. And, secondly, collateral substances introduced into the brain had to be expelled from it sooner or later. This is the equivalent of the precocious polymath reverting to the former ignoramus."

"He could have foreseen that turn of events and could have done something to stop it," observed Roy. "Gradual school-teaching forms long-lasting bonds in the brain which we call the memory of information received. Plachek could have assumed that substances introduced into the brain would create the same bonds."

"Incidentally, Richard was worried about the difficulty that Henry just mentioned," said Armand. "He had no intention of limiting himself to the creation of short-term polymaths, although he ended up as one himself, since his linguistic knowledge disappeared fairly quickly. He regarded as his main task what Roy had mentioned: self-reconstruction as a genius. Look at the material associated with the second preparation."

The second scheme showed that Plachek recorded an encyclopedia of the mathematical sciences on the molecules of another substance. Since he used reference books, and not a special scheme of selection, it was obvious with what naive meticulousness he transferred all the concepts and formulae, beginning with the most elementary ones, into the intra-molecular bonds. However the curves of the molecular oscillations coincided so ideally with those of the brain cells that at times it was impossible to distinguish between them.

"Perfect resonance," said Roy, "Plachek's brain had not only to swallow the scientific food fed to it, but itself to develop it further. I don't know about genius, but if Richard didn't become mathematically talented, then I don't know what talent is. A drop of such a fluid introduced into the brain ought to have satisfied his vanity to the full."

"That drop was too heavy for him. He overheated his brain cells," said Henry. "He burned up his head. He gulped down food that was not digested. The brain cannot

tolerate just any amplification of its vibrations."

Roy thought for a moment.

"But the enormous increase of erudition in the field of linguistics was withstood by Plachek's brain without any damage nevertheless."

"That's the whole point!" exclaimed Henry. "Plachek had a natural flair for languages. He could have become a brilliant linguist if he'd studied languages since he was a child. But maths which he hated became an obsession with him. A vast amount of mathematical information exceeded his brain potential. By intensifying the work of his brain cells, he ruptured their inner bonds, since it was in this very subject that the intellectual stamina of his brain was at its lowest. The strength of a chain is in its weakest link. A preparation, probably harmless to anyone else, became a fatal poison to Richard."

"A great pity," sighed Armand. "A great pity about Richard himself. A pity there's little for us to gain out of his invention."

Roy objected thoughtfully.

"Why little to gain? He left us a creative abilities meter. I think the instrument can be developed further and put to use—let's say, in examinations for scientific workers. And if our chemists can perfect the information drops he created, they will come in useful too. There are many situations when even short-term erudition is useful. Instead of using reference machines for research, intro-

duce into the brain one or two drops and solve a highly complex problem that demands a mine of information."

"That could come in particularly useful on long-distance voyages," said Armand. "You can't take a massive academic machine with you to every planet."

## BORN UNDER AN UNLUCKY STAR

### 1

Roy's school friend, Shura Panov, used to say that he'd been born under the Star of Great Failures in the Constellation of the Grievous Muddlers, and it wasn't purely out of politeness that his friends agreed with him.

In school, Roy kept a detailed martyrology record of Shura's failures. A long list mentioned instruments that had disintegrated into their component parts of their own accord when Panov approached the lab bench; electronic systems, stubbornly refusing to work if Panov's hands touched them; and harmless chemical substances, which had reposed peacefully for years in their jars, suddenly burst into flames if he picked them up. And the list was topped by a dramatic incident during the maths' exam: the display computer responded to all Shura's answers with the assessment "Wrong", and when Shura, driven to desperation, shouted, "But

two times two *do* make four!", the electronic examiner roared in a voice of thunder, "I've never heard such rubbish!" and blew its circuits.

At university, where Shura and Roy were at different faculties, Panov was just as inexorably dogged by failure. His course work, "The Mathematical Foundations of Telepathy", was rejected twice, and his thesis "The Physical Meaning of the Category of Unprecedentedness and the Elementary Methods of Calculating the Impossible and the Unfeasible" split the academic council in two. Shura obtained his master's degree nevertheless.

For the last few years, Panov had been studying the effect of stereofilms on the viewer. When the rumour reached Roy's ears that Shura had been so carried away as to try proving that in perception even unrealities are real, Roy grinned and decided that he could continue the list of Panov's failures.

Roy, who preserved a sense of reality in situations which could only be described as fantastic, always found it irritating that Panov sought out the paradoxes in any commonplace eventuality. Even universally boring truisms became enigmatic or bizarre when Shura began to discuss them. Roy's jeers were certainly not meant as malicious attacks on his friend; they were rather a form of self-defence against the other's unorthodox conclusions.

The meeting between Roy and Panov in

Museum Town happened by chance. The friends had not seen one another for two years and Roy was delighted.

Shura was sitting by the fountain in the Garden of Poets. He was staring fixedly at a marble Pushkin walking between Byron and Goethe. Shura looked as though things were not going too well with him. He had lost weight in the last two years. He glanced at Roy without a glimmer of recognition. Roy sat down beside him.

"Hullo, Shura! So you've got to the ancient poets at last! What is it about their works that doesn't suit you? I can suggest an intriguing theme about the very man you're staring at so enigmatically. Let us formulate it in your style: on the penetrating eloquence and the lofty intellectuality of Pushkin's confessions of love in the light of his affirmation about himself: 'But, loving, I was dense and dumb.' "

Panov smiled. There was much sorrow in his smile. He never lost his temper when people poked fun at him, he was merely disappointed and then, caught up in a new idea, forgot about the fun-poking. He never hit back and he remembered no evil: it took the sting out of any irony over his quirks. Moreover, he did not impose his paradoxical ideas on others.

"You've hit the nail on the head, Roy," he said thoughtfully. "I was indeed thinking about Pushkin, but only in connection with his other verse. I'm bothered about the riddle of memory. No, not chemical reac-

tions taking place in the brain, but the essence of memory, its enormous psychological effect, its ability to exert a powerful influence on all our behaviour. I would describe this subject as follows: "the power capacity of memory".

Roy could not miss such a convenient chance for irony.

"Magnificent! Memory, measured in kilowatts. Two million kilogramometres of reminiscences by a debauchee about the women he jilted. Is that what you have in mind?"

Panov laughed softly. Roy could poke fun, but he was a thoughtful listener. Shura appreciated his friend for this and was reconciled to his irony. Roy sometimes gave practical advice, and that was important too. And he was good-natured. He could make a joke without causing offence.

"However strange it may seem, just that. Think about it: where does memory get so much power from? Time has passed irrevocably, and those people aren't there any more, and those events don't repeat themselves, but you are reliving past joy and past bitterness. And sometimes you experience it more vividly than in real life, and, most important of all, many times over. An event is a one-off thing, but the memory of it is reproduced an infinite number of times."

Roy could not help admitting that there was common sense in Shura's argument. He noted with astonishment that Panov had treated memory not as a trivial fact, but as

a fairly tangled problem. More for a closer definition than for irony, Roy said:

"Memory as a conserver and amplifier of fast-flowing reality! Am I formulating your idea correctly?"

Shura thought that his friend was still poking fun at him.

"Rather superficially," he answered dryly, "as always, when you're joking. You simply don't want to understand the paradox: the world of memories, thanks to its infinite reproducibility, is incomparably wider than the real world. And from that all our life is a weird equivalence of the pressure of a gulf of memories about past events with a short pulse proceeding from the immediate moment. As for the power of memory, remember how that same Pushkin wrote about the scroll of memories in the brain:

*Reading the life I lived all through those years,*
*I tremble, fill the air with curses,*
*And bitterly complain, shed bitter tears,*
*But do not wash away the dismal verses.*

"Don't you want to suggest some kind of drug to limit the power of memory?"

"In any case, I would seriously like to make sense of the memory paradox. I intend to work on the problem. I'll find a serious solution..."

"All your solutions are serious," objected Roy, shrugging his shoulders. "Only one truth can be said of any one subject, and it is trivial, because it is the same with all who seek

the truth. But one can err in an infinite number of ways. Falsehood is immeasurably more varied than the truth. Moreover, you are not only endowed with an artistic capacity to make mistakes, but you have a staggering way of seeking out the most far-fetched and unexpected deviations from the truth!.."

This time Panov took offence in earnest, which was rare with him. He turned away and stared bleakly at the statues of the three great poets. The leaves were falling from the trees. It was the third month of autumn, the time of rains and wind. Roy breathed deeply with enjoyment.

There was a bitter odour of fading in the air. Roy loved that acrid fragrance. Round the statues, the broad branches of the limes whispered slowly among themselves. Roy realised that he had gone too far.

"If I'm not mistaken," he said mildly, "you were working on improvements of the stereo-cinema. How are they going?"

Panov looked strangely at Roy. He seemed to be wondering whether or not to carry on with the conversation.

"Nothing special... And not the stereo-cinema, but the stereo-theatre. Incidentally, you don't go to stage shows so I can't explain the difference to you. Some discoveries have been made, and some of them most unexpected!" He laughed quietly.

When he laughed like that his face became so sad that Roy immediately wanted to console him. Still smiling, Panov didn't wait for Roy's comment.

"As you know, I was born under the magic polygon of the Constellation of tne Grievous Muddlers, and that's made itself felt here too."

"You were born under the Star of Great Failures," Roy reminded him pedantically, with a laugh.

"No, there haven't been any failures," responded Panov thoughtfully. "I've already said—surprises... What would you call that?.." He was choosing his words as carefully as if each one was a condemnation.

Then Panov jumped to his feet and tugged at Roy.

"Let's go quickly."

"Where to? I'm having a break just now. I've got a difficult experiment in the lab this evening."

"We'll manage before evening. I'll take you to the experimental hall and show you a stereofilm of the events on Sargona. The recording was made under my system. They haven't released the film for the general public and I don't suppose they will."

"I can guess why. The latest failure?.. Wait, are you speaking of that bizarre business when Severtsov ended up in the hands of the natives and they nearly ate him! One of our cosmonauts rescued him—I don't remember who. By the way, is it true that the Sargons are half-man and half-bat?"

"In half an hour you'll see Severtsov and the Sargons, and then you can decide for yourself what they look like."

## 2

They were sitting alone in the viewing hall and a colourful Sargonian forest was approaching on the screen—amazing trees with green, yellow, red and milk-white trunks and luxuriant scorns, shining in such a variety of hues that you wanted to tone them down. Roy hastily put on the dark glasses. He couldn't remember how he happened to be holding them, but their appearance was timely, since his eyes ached without them. There were sharp odours floating about in the air, and they made him feel giddy. Something that was either a soundless bird or a monkey flew over Roy's head as it jumped from tree to tree. Roy stepped back in alarm and clutched at his hat to stop it falling off his head.

"Don't you think it's a bit too realistic here?" he said to Panov with dissatisfaction. "True art demands..."

"Quiet, please!" whispered Panov nervously. "Or do you want the Sargons to hear us? That's them coming now!"

The Sargons had indeed appeared in the viewing hall, fluttering over the armchairs. They weren't really armchairs, but bushes that looked like chairs and were as brightly coloured as all the plant life here. Roy jumped off his seat with a pounding heart and took cover behind the bush in front. He now realised that it was not a chair, as he had imagined, but a very real bush, dense, acrid-smelling, and prickly as well. Roy was delight-

ed that, before leaving the starship, he had pulled on the suit that was heavy and thick, but unexpectedly convenient as it softened the prickles. Panov was breathing spasmodically lying on the reddish ground behind the next bush. Roy guessed that he was frightened. But he had no time to think about Panov as his eyes were rivetted on the glade. Pavel Severtsov, the expedition's cameraman, was standing there. Roy shuddered with fear for his friend and at the same time was indignant at his stupid behaviour, hardly able to restrain himself from standing up and swearing at the top of his voice. He couldn't understand Severtsov. Pavel was acting like a greenhorn. It was very strange that such a butterfingers could have been allowed to leave Earth for Outer Space. The examiners had definitely blundered when they had presented him with his cosmonaut's diploma. The only way of correcting the mistake was to give Pavel an immediate signal to run, to run at top speed, to dash into the forest as fast as his legs could carry him!

"Don't you dare!" whispered Panov in alarm when Roy nevertheless made an attempt to stand up. "They're nearer to us than to him, and he has trees behind him; he can hide in the forest, but they'll catch us in the bushes as if we were hares."

Roy slowly sank down again. Pavel Severtsov was coolly operating his stereocamera by the tent on the edge of the glade where the three of them—Panov, Roy and Pavel—were intending to doss down for the night. The

natives had appeared unexpectedly. Their nearest settlement was about a hundred kilometres away; they simply couldn't have appeared in this wood, according to the readings of the reconnaissance instruments, which had declared that the only living creatures in the forest on the shores of the lake were birds and monkeys or, to be more precise, small animals similar to terrestrial monkeys, tiresome creatures but not dangerous. As for the Sargons, there was neither hide nor hair of them.

They were here all right, the Sargons, and the analysers had lied outrageously! The natives came swarming out of the forest and charged with a whoop through the scrub towards the meadow. Roy and Panov managed to hide in the branches, but Pavel, instead of taking cover in the forest, with criminal negligence, there is no other term for it, had levelled his camera at the visitors and was recording their attack on him for posterity!

The biggest native who was obviously the leader of the group, raced past Roy and Shura. The warriors hurried after their leader. The analysers had not lied only in the sense that they had identified the Sargons as beings which had the features both of man and bat. They had human bodies, legs and arms and, perhaps, weapons—swords and quivers of arrows, but they also had bat-like fur, two baggy wings behind their backs and a muzzle with a predatory fanged mouth instead of a nose and, of course, ears: these strange beings talked by quickly moving their ears

and also listened with them.

The instruments had established that meaningful sounds came from and were received by their ears. On first acquaintance with the Sargons, Roy and Panov were astonished by the strange function of the ears that resembled burdock leaves, but Pavel went into raptures. He was trying to prove that the human division of uttering the hearing speech between the mouth and the ears was far less advanced—he must, absolutely must record in greater detail on film the process of conversation among the Sargons... And he was doing just that at the risk of his own neck!

"We mustn't wait any longer," muttered Roy furiously, and he drew his pocket gravigun.

Panov stretched out his hand.

"I won't allow it, Roy!"

"Who's head of the search party, you or me?" inquired Roy haughtily. "And have I no right to act at my discretion in an emergency?"

"It seemed to me that you intend to kill natives," muttered Panov. "We didn't land on this planet to commit murder!"

"Or to watch and do nothing while our comrades are killed."

"We don't know what the Sargons mean to do. Please, wait before you use that weapon."

Roy looked in Pavel's direction and put the gravigun away. It was too late to use it now. The Sargons had surrounded Pavel in a dense

ring. Gravity bolts would have been just as dangerous to him as to them.

Shrilling frenziedly, the natives hurled themselves on Pavel, threw him to the ground, twisted his arms behind his back, bound them and raised him up on their wings. Pavel lay on them as if on a stretcher. He made no attempt to resist. Right up to the last minute he hadn't believed that the natives were hostile.

The leader took hold of the stereocamera and, aping Severtsov's movements, trained the apparatus now on one, now on another of the warriors. They recoiled with a rasping shriek, despairingly fluttering their wrinkled, leathery, featherless wings. There was no doubt that the weird object terrified them. The leader alone was not afraid of the stereocamera: his rank probably didn't allow him to express fear.

But he didn't tempt fate for long. He laid the apparatus down on the shining white grass near the flame-red tree under which the captive was lying bound and helpless.

The leader's ears began wiggling very quickly, and the men hidden in the bushes heard a buzzing like the chirping of a cicada amplified a hundredfold. This must have been an order: when the Sargons heard it, they dispersed over the glade. Panov apprehensively touched Roy's shoulder. Shouldn't they withdraw while the going was good? The Sargons could head their way and then the two men would be unable to escape. Nor could they help Pavel from where they were.

They could only try to rescue him from the forestside, but to cross the open glade was out of the question...

"Fine comrades! Left their friend in the lurch!" said Roy bitterly. He took out his binoculars and levelled them at the glade: he had a good view of Pavel and the Sargons bustling round him. "What are we going to do? Isn't it time we rescued Pavel with a direct attack?"

Although pale and downcast, Panov was adamant.

"You're the leader of the reconnaissance party, you have the right to make any decision. But once again I remind you that we came here to study the Sargons, not to kill them. It revolts me even to think of using a gravigun against natives armed with nothing but bows and arrows and their own claws!"

"Shall we call for help from the starship?"

"It's a long way from Sargona. Help will arrive too late."

"You have some other plan, haven't you? Apart from exterminating the natives?"

"The Sargons must be stunned, not exterminated. And when they are at a loss, we can free Pavel."

"Clout the leader with a club? Graviguns are out, lasers even more so. But I don't see any other way of stunning them."

"You soon will. I need an hour to get to the starship and back. Meanwhile, if the Sargons decide to harm Pavel in any way... Anyway, try to spin out the time till I get back."

"I'll skirt the glade through the forest and get to where Pavel's lying. Look for me over there. But remember that if they make any attempt to kill him, I won't stand on ceremony with them."

Panov silently disappeared. It took Roy about five minutes, keeping himself at a safe distance, to make his way round to Pavel. Severtsov was lying where they had left him. A campfire was burning in the glade. Several stakes, driven into the ground at a slant, converged over the centre of the fire and a carcass was hanging from the crossed stakes. Roy recognised it with a thrill of disgust as the carcass of a Sargon. The unhappy one doomed to be barbecued was without wings; these had no doubt been torn off as being of no gastronomical values. "Cannibals!" thought Roy with revulsion, gripping the handle of the gravigun. "I only have to send a pulse to the resolving device and a gravity bolt will scatter you in a cloud of molecules. I shall definitely do it if Panov's too late. I really want to do it, so that I don't get reproached later on Earth!"

After building the first fire, the Sargons made another not far away. Four natives went up to Pavel, heaved him up on to their wings and carried him to the second fire. Roy sighed and edged forward. There was still no sign of Panov. He had no option but to use the weapon. Roy mentally sent a signal to the resolving device to unblock the gravity capacitor. All he had to do now was press the spring. Roy slowly raised the gravigun and

took aim at the leader, who was presiding importantly in the middle of the glade.

Just then, a mighty roar came from the forest. The Sargons darted about the meadow in horror, convulsively working their ears and rattling their leathery wings. A creature that looked like a gigantic ape burst into the glade. Its inflated ribcage was belching flame and its eyes were blazing fiercely. The intruder stretched out two corrugated paws that were blue with heat and again blared like a trumpet. The luminous substance with which Panov had smeared his spacesuit glittered so terrifyingly that the Sargons abandoned the fires and fled into the forest.

Roy ran up to Severtsov, quickly cut the thongs and shouted, "Run to the starship! Shura and I will cover your retreat! Where are you going, you lunatic?"

"Mustn't lose our gear," objected Severtsov coolly, and he made for the stereocamera.

Panov continued roaring and waving his paws. But the Sargons quickly recovered themselves and arrows began flying at the flaming monster. Severtsov hid in a thicket. Roy grabbed Panov by the arm and dragged him behind the trees. Shura fell, got up, took a few steps and fell down again.

"You've been hit!" shouted Roy, and he tugged an arrow out of Panov's neck. "It's poisoned!"

Panov tried to walk but couldn't. Roy heaved his friend on to his shoulders and made a dash for the river where the starship was waiting. He collapsed with his

burden on the bank. Severtsov ran up.

"Medicine, quick!" shouted Roy. "It might be an instant poison! Quick, quick!"

Severtsov ran to the starship. Panov made a last effort, half-raised himself up and smiled at Roy.

"You remember, Roy," he whispered. "The Star of the Great Failures... I'm out of luck..."

"It's over!" said Roy despairingly a few minutes later as he threw the useless medicines on to the ground. "He's dead. It's over, Pavel!"

## 3

"It's over, Roy!" said Panov, shaking his friend. "Wake up. Stop weeping. You see, I'm alive."

However, it was some time before Roy's arms and legs stopped shaking and he recovered the power of speech.

"So that's your new invention!" he said when they had gone outside.

"Yes, Roy. The representation becomes reality and the viewer is turned into one of the characters. Tell me, please, did we save Pavel from the Sargons?"

"Don't you remember how we saved him?"

"In my stereo-theatre, each can watch his own special performance. I chose a different programme for myself. It's connected with the problem I'm working on now—memories, though not my own personal ones, but those

of humanity as a whole... In my stereopicture, you and I went back into the past, into the remote Twentieth Century, and we went strolling round Moscow... And somewhere on the outskirts we saw a wooden house on fire, and there was a child crying inside..."

"And so..."

"Of course! I ran in first, you followed me into the blazing building. The window-panes were bursting, we jumped over blazing furniture..."

"Tell me, what happened to the child?"

"It was a girl. You carried her out. She wasn't even scorched, just very frightened."

"What about you, Shura?"

"I perished in the fire," said Panov sadly. "It's all very strange, but somehow it works out that in all my stereopictures I get killed."

## THE FIRE WITHIN

Mikhail Potapov has been universally recognised as the creator of individual music. At Potapov's concert, an astounded humanity was introduced to this new and now highly popular form of musical auto-sound. (Potapov himself used, as is known, the term "musical selfcognition".) However, it should not be thought that the new form of music sprang fully formed like Aphrodite from the

foam. Behind Potapov's great creation lies not only a history that tells how it captivated minds and hearts in a very short time, but a prehistory which was, unfortunately, tragic.

The archives of the brothers Henry and Roy Vasiliev, well-known physicists of the last century, have recently been under examination. Among other documents, material was found that casts some light on the sources of individual music. This material will be issued in the forty-seventh circle of the "Classics of Science" series but here we will merely reproduce Roy's address at a meeting of the Classical Music Society. This speech was never broadcast, nor did it ever appear in print. This may be because classical music, which again has many devotees today, was almost totally forgotten in those times: the collections of its few fans did not attract widespread attention.

What has survived of the address is printed below. The beginning, unfortunately, has been lost.

1

...It happened not long before Henry's last illness. He was already unwell: the injuries sustained in the baffling starship crash on Mars—a mystery solved by him eventually with such brilliance—had been treated, but not cured. Outwardly, Henry was still cheerful, handsome and quick-moving, but I

had a vague hunch about the way things were really going and one bad day—I will explain later why it was bad—I forcibly dragged my brother out of the lab.

"You're a fool, Henry," I said. "And I'm a swine. Don't argue. I can't bear exaggeration, and what I say is the objective truth."

"I'm not arguing," he protested curtly. "But I'd like to know what you want of me."

"We're now going outside. And we're going to walk round the town. And we shall take a stroll in the park. We could fly to the seaside, if you want to. And if we don't do this, I shall no longer feel like a swine callously looking on as my brother senselessly destroys himself, I shall regard myself as an outright murderer."

He hesitated for a moment and looked sadly at the instruments, as if parting from them for a long time. At that time, we were investigating notes by the second engineer of the starship "Scorpion", the only survivor after it crashed on Aida, a little planet in the Vega system. There were hundreds of guesses, many have remained unanswered to this day, but at the time it had all seemed monstrously obscure.

Henry didn't want to leave this work for the sake of a stroll. Nor did I, but it was essential; Henry had become so weak. I would have dragged him away from the instruments by the scruff of the neck if he had not given in.

He surrendered and we walked out to the countryside.

I will not describe our walk. The most important thing about it, as it turned out, was that to our common bad luck, we met Albert Simagin in the park.

He was rushing down a deserted avenue. He had a crazed look, his mouth was twisted, and, as he ran, he was weeping silently, without tears. Henry stopped him. He had been friendly with Albert back at school. I disliked the man for his lack of restraint and his excessively loud voice.

"Where from and where to?" asked Henry genially.

I lay special stress on the geniality; Henry always spoke to Albert like that. Even now, I don't understand what Henry found attractive about that half-cracked dreamer.

"From the museum!" shouted Albert, as if announcing a disaster.

"Why run away from the museum?"

As you will have realised, it was Henry asking, not me. I simply scrutinised Albert in silence.

Albert's loud and muddled speech could not legitimately be called an explanation. I grasped one point: back in the museum, Albert had been examining a team of four galloping horses—a recently finished picture by Stephan Runge. Albert was impressed by the dashing horses' hooves. He went wild at the shapes of the horses, he was tormented by the expression of flight, he was intoxicated by the music of the straining muscles—such were the words he used to describe his state of mind. The picture resounded, he

heard it rather than saw it. "A tragic symphony of the gallop," he said. That was the beginning of his argument with Henry.

"I know that piece of Runge's," said Henry, surprised. "It has different associations for me. I would say that the picture sounds cheerful, not tragic."

"Balderdash!" roared Albert.

Black-haired, shaggy, with a very dark face, with wild eyes whose expression changed very quickly, now blazing up, now subsiding, he had always seemed a bit dotty to me. Albert's booming voice got on my nerves. I was afraid the conversation might upset Henry, and that would be bad for him. Henry was, in fact, smiling and keeping his temper.

"You're primitive! You don't understand the main thing: each hears his own personal music in a picture."

"You are denying objective reality?.."

"I'm not denying it, I'm affirming it. Denial is for those who cannot create. I am a creator. I affirm that where you can hear laughter, I hear the sound of weeping."

"But that is precisely what denial of the objective universality of perception amounts to."

"Rubbish! It is an affirmation of the objective universality of individuality. You walk indifferently past thousands of women, but one shakes you, the very one all your friends walked past without noticing. She struck a chord in you, but not in the others. But if you were right, all the young men would fall in love with the same women,

the ones who had more objective feminine perfections. But you're looking for your own music in a woman, not dull objective virtues."

"A strange transition, from a picture in a museum to falling in love."

"It's perfectly normal. Painting is the music of colours, and love is the music of feelings and behaviour."

"In a word, everything resounds?"

"Everything resounds! Everything is musical: things and deeds, words and feelings. And every man perceives the world in his own way—each has his own music of the world. To you, the galloping horses on Runge's picture are a merry dance, to me they're a sombre requiem."

Henry was delighted by Albert's reasoning. He glanced cunningly at me.

"So I will hear the footsteps of destiny in Beethoven's Fifth Symphony, but you, Roy, will hear a tavern brawl."

"Don't talk about Beethoven!" bellowed Albert. "The ancient masters wrote compulsory music. They unceremoniously lumbered the listeners with the melodies they had composed. But I'm arguing about free music, which resounds in your soul from that cloud over there, that sun, that foliage, those houses, these passers-by, from you yourself even, although, to be honest, you do not resonate very well!"

Albert's excitability was cheering Henry more and more. At that moment I too was delighted that he was arguing with passion, but I could never have guessed to what this strange dispute was leading.

"What a pity your individual music is abstract and can't be heard on any instrument."

"Rubbish again! There is such an instrument! I have designed it myself. It records music as I have perceived it. I ran from the museum so as not to lose a single note of the agonising symphony of flight that I heard within me. Meeting you confused the harmony in my soul; instead of harmony, there is cacophony. You can go to hell, both of you! Until we meet again, and not too soon, I hope!"

Henry waved to him.

"Until we meet again, Albert!" I said. These were the only words I spoke during the encounter.

## 2

On the next day, we learned that Albert had died. It turned out that we were the last people he saw before his death, as he testified himself by shouting at the robot-porter: "Met Roy and Henry! What a swine that Henry is, he upset me badly with his damfool doubts, but now I'll show him, now I'll show him!" He then locked himself up in his study, from where came incomprehensible sounds, also recorded on the porter's tape. Silence fell two hours later. The robot interpreted Albert's silence as sleep, but it was death.

Next morning, Henry and I were called

to Albert's flat. He was lying on the floor near a vanished force-field divan—he had evidently rolled off it in agony before he could call for help or switch off the interior field. I have often seen the dead on Earth and in space; in the last few years Henry and I have had to disentangle the riddles of many mystery deaths, but we had never seen such a strange body before. Albert's body had been gripped by a violent convulsion, his arms and legs were so impossibly twisted that it seemed as if the bones must have been broken to achieve it, but the bones were whole, as the medical examination showed. The first thing that caught the eye was the appalling shape of the body; it seemed to be screaming in unbelievable agony. But this is where the strange part begins: Albert's face wore a fixed expression of happiness; he was enjoying his death, he was exulting, he was in raptures. That was the impression I got, and Henry felt the same. A second strange thing was that the body had turned black, as if Albert had been burnt all over.

I stood by the corpse for about a minute and then moved away. Looking at Albert gave me the horrors. I had not, like Henry, been friendly with him, but his sudden death was so appalling, that my heart seemed ready to burst.

"Your lips are trembling, Roy," said Henry. He could hardly stay on his feet with agitation. "You must be feeling ill."

"No worse than you," I retorted, trying to smile. "You're looking pretty green yourself.

Death is death, and there's nothing anyone can do about it."

The investigating doctors were already in the room.

"What happened to Albert?" I asked them.

"It looks," replied one of them, "as if he was poisoned by a substance that caused a fatal rise in temperature. The burns on the body, to judge by all appearances, came from an internal source. We'll know exactly what it was at the post-mortem, but in the meantime I must say I've never known such a baffling death in all my experience."

"Nor I in mine," I said.

Henry said nothing and looked round. I don't ever remember him expressing his opinion straightaway in difficult situations. He had to look at a hundred objects and think a hundred thoughts before saying even a single word.

There was an unfamiliar apparatus standing in the room and Henry began walking round it as soon as he had recovered from his initial sense of shock. The body was taken to the morgue. I answered the questions of the investigating doctors and myself asked them questions, and then wondered what Henry had found. He had not discovered anything important. The apparatus was an amplifier of electric potentials; a sophisticated machine, and it was no easy matter to determine what it was intended for and how it worked. We could not find a printed circuit diagram on the instrument or anywhere in the room.

"In my opinion, that thing's got something to do with the functions of the brain," said Henry at last. "These flexible clamps are put on the arms, and these go on the neck..."

"And those are swallowed," I tried to joke, pointing to two spheres that resembled oranges in size and colour. "An indigestible snack, as Albert showed with his tragic end."

In this way, we spent some time exchanging comments. Then the stereoscreen flashed up a picture of the post-mortem, and, without leaving Albert's room, we became witnesses of what was happening in the morgue. The pathologist's conclusion was as follows: Albert had died as a result of a burn that had travelled through his whole body. It was a very rare case of internal autocombustion.

"Allow us to remain in Simagin's flat," I said to the investigator who had been watching the stereopicture of the dissection with us. "We'd like to think about the causes of the tragedy on the spot."

"Oh, please do," he answered with what seemed to me like great relief. "We would appreciate it if you could throw some light on the mystery."

## 3

"Well?" said Henry when we were left on our own. "I've no doubt you've got a possible answer ready, and so incredible that it could be the only right one. After all, you've often said that riddles are only riddles because

there are rare causes at the bottom of them, and more often than not we look for the obvious ones. Or is that not so?"

He was joking with an effort; his face was sad. You must understand that it was no easier for me either. But I backed up his ironical tone so as not to let my nerves get the better of me. I was becoming more and more worried about Henry's state of mind. We had in our time cracked the riddle of Redlikh's death, we had witnessed the tragic end of Andrei Korytin, a man who had been very close to us. These had all been sad affairs; our success in unravelling them had not been pleasant for me or Henry. But never before had I seen Henry looking so dejected. I now know that he was already a sick man, but I hadn't realised it at the time. One thing I distinctly realised: Albert could not be brought to life again, and the wound inflicted on Henry by his death must not be allowed to become too much for him to bear.

"I have, of course, been looking for the incredible solution, but nothing has occurred to me except banalities," I said.

"Very well. Declare your banalities, if that's all you're capable of."

It was in the usual style of our conversations. Henry often poked fun at my working method, although all the important ideas that had made this method famous came from him, not me. He was like that—at first he mocked, then he got carried away. And on that day, as I began my argument, I did not doubt that somewhere in the middle

he would get caught up in it, interrupt me, and then continue on his own, making a much better job of it than ever I could have done.

"Albert's death was the result of a burn," I said. "The doctors have established that. We now have to find out what kind of physical agent caused it."

"In other words, his death was not the work of a supernatural agency. It is quite possible to agree with so penetrating a deduction."

"So Albert experienced deep shock," I continued calmly. "What could have shaken him? He died several hours after meeting us. The robot testifies that Albert was stung by your objections and was intending to prove something to you. And that unknown 'something' finished him off."

"Does that mean I was an indirect cause of his death?"

"Not you, but what he was going to use to defeat you in the controversy. Some kind of irrefutable argument against you which he sought out—that's what killed him."

"Wait, wait!" said Henry. I happened to let drop a rather vague idea that he turned into an all-illuminating revelation. "Let's recall what Albert and I were arguing about. I affirmed that all people perceive the music of the great composers in exactly the same way. But he objected. He said that music is created in the soul of each person, and that with the aid of this individual music, people will understand the world. 'Everything resounds ... things and deeds, words and feelings'—isn't that what he said?"

"Precisely. But how could he refute you? I'm talking about that 'I'll show him!' "

"The only thing he could do was to show physically that things and events created music in his psyche. He said that he imagined Runge's picture as a tragic symphony, a sort of requiem. I would be refuted if he could record that symphony, and not simply record it as something created by him, as all composers do, but also show that each note was engendered by the picture. He was purely a resonating instrument, not a creator."

"So Albert was burned up by the music born of Runge's picture. And its heat was called by a passionate desire to convince you that the music of things exists in reality. But how did the fatal music sound, and where?"

"I don't know yet. I must think."

Henry quickly walked up and down the room. He always paced excitedly and silently about when he had seen the light of a new idea.

"That's Albert's murderer!" said Henry and he pointed to the apparatus towering up in the middle of the room.

## 4

That apparatus looked suspicious to me too, but I would hardly have decided to affirm that it was at the root of the trouble. Henry had not dispelled a single one of my doubts. He held up his hands imploringly.

"Don't ask too much of me! I've not found it yet, but I'm looking for it! It's still only a stark idea."

We inspected the apparatus warily again, but that left us none the wiser. There were two riddles locked up in it: we couldn't understand what the thing was for, and, even more baffling, how it worked. Henry stuck to his guns: it had been the source of the music that had incinerated poor old Albert. To his very last moment, the luckless man had not realised that he was perishing; hence the fixed expression of happiness on his face when his body was in the throes of its last convulsions.

"Let me help you," I said to Henry. "I know where the power source is. If the music of Albert's soul was being created in it, then it was being powered by the energy of his own body. There is no need to look for a cable to an external power source. It's a vampire machine that sucks the body dry to sweeten the soul."

Henry looked thoughtfully at the flexible leads with the clamps at the ends; there were five of them.

"That can be checked, Roy. If I fasten the clamps on my arms, legs and neck..."

"No you won't, Henry. You aren't going to get yourself killed before my very eyes."

"If it's before your very eyes, I'll be quite safe. And you ought to understand that there is no other way of checking."

I am now coming to the most difficult part of my story. How did I have the nerve

to try out such a dangerous experiment on a man in poor health, and him my brother, what's more? It's not easy to answer this question at once after what happened, all the more so since I want to explain facts and not justify myself.

In the biography of Henry which I have dictated and in which I have described our joint work, I mentioned that Henry was unbearably stubborn. But that was not the most important thing of all. I would somehow have coped with Henry's stubbornness by countering it with my own. There was another reason why I agreed, and a very important one, let me venture to assure you! At first, we used to take turns in experimenting on ourselves, and in fact I was the guinea-pig more often than not, since I had been physically tougher ever since childhood. Nothing good came of this. Henry lacked the sang-froid needed to run hazardous experiments. He would be carried away by the experiment and forget about me, or he would take fright at my condition and abort the test prematurely. As I had more stamina, I was more self-confident. You will soon realise that though this was generally true, in this particular instance I overestimated my powers and this very nearly precipitated a second tragedy.

"I agree, but I'm laying down some harsh conditions," I announced. "First: we will investigate this instrument in our own lab and there will be no experiments until we have obtained a complete circuit diagram. Sec-

ond: if music should be created in this fiendish device, then it must be heard not only by you, but by at least one more listener—myself. Therefore we will first build an adapter to make the unheard inner sounds audible, and then we will begin summoning them to life. Last: to ascertain the merits of the music produced by this thrice-damned apparatus, we shall invite two more persons to the test—an intelligent medical man of the kind who can not only treat illnesses but who can diagnose them, and a real musician able to reproduce music and to give it a critical appreciation."

"You'll find a medical man easily enough," said Henry with a grin. "But where are you going to find such a versatile musician?"

"I already have. And I can assure you, he's just the lad we need!"

## 5

That was how Mikhail Potapov joined us.

We were at school together. As a child, Mikhail was a slow, silent sluggard. I can't say that he was mad about music in those days. He wasn't mad about anything really, and if any enthusiasms were germinating, then they must have been ripening for many long years in a latent condition, since no one ever saw the harvest fruits. In those days, he was a grey nonentity. But soon after school he suddenly made a name for himself as the composer of original music that was

irregular, incomprehensible and sometimes harsh on the ear rather than pleasant. It sent the listeners into a trance. "The Hypnotic Symphony" was his own title for one of his works. I have no doubt that all these facts are better known to you as lovers of the classical melodies "cursed" by many as "compulsory", to use Albert's ill-chosen word. But I must remind you of them, for without this I cannot tell the story of the events that nearly killed Henry.

Mikhail Potapov turned up one morning when we were in the lab and working on an audio-adapter for Albert's apparatus.

He entered without knocking, did not greet us and never said a word; he just gave us a bleak and silent look. Henry didn't know him, he was seven years younger than Mikhail and me, but he guessed who had arrived.

"Ah, it's you!" said Henry welcomingly.

"Yes, it's me," replied Potapov and, with a glance in my direction, nodded his head in a business-like way.

I invoked the interior force-field and sat my guest in an armchair, the more so as our lab was an awkward place to walk about in, being cluttered with apparatus. He sat and looked silently at me. He disliked talking, and when he did, it was as if his mouth was crammed with pebbles.

"You've already heard that Albert Simagin died under mysterious circumstances," I said. He nodded again. "But you probably don't know that Albert, who was a first-class

engineer, had a passion for music—not the ancient kind or even yours, but a sort of special music that refuted and surpassed all the composers who had ever existed before him."

Potapov shifted in his armchair and mumbled, "My music is the most contemporary. It is irrefutable and unsurpassable."

"Refuted and surpassed all you composers!" I repeated. I wanted to annoy him. "He claimed that you arbitrarily imposed your own sounds on the listener and forcibly induced the emotions you wanted. He denigrated your music as compulsory. He tried to create a music that was free, performed for all at the same time, but for each listener according to his own personal taste."

"Interesting," muttered Mikhail. It wasn't easy to get through to this man. He thought a moment and added, "Very interesting. And the result?"

"Albert was killed, that was the result. And now sit and watch. Henry and I are preparing to test an apparatus which Albert built so that each could create his own music."

Potapov sat watching in silence, occasionally closing his eyes so that he seemed to be falling asleep, but a minute or so later he would slowly raise his eyelids to stare at our work again; a look of understanding would gradually appear on his face and a flush would flicker on the grey cheeks. Henry and I exchanged comments. Strictly speaking, I did the talking and Henry responded. I think,

however, that anyone could have worked out for himself from our disjointed conversation what we were preparing to do, and Mikhail, of course, was no dimwit.

After a while, he became restless.

"Roy," he muttered, "I've had a thought. I want to take Henry's place."

"If that's a thought, then it's no good." I replied. "It's a dangerous experiment, and Henry's an experienced lab worker, but I can't say the same for you."

"That's not what I was thinking, Roy. I'm not looking for that ... for danger. I want to check how Albert understood music."

"We want to do the same. And we're just about to do so. Keep quiet and listen. Soon there'll be music called up to life by Albert. It will sound in your ears, and your job as an expert is to say if it's of any merit."

After that, neither by word nor movement did he interrupt our preparations. A doctor and his assistants came to the lab. Clamps from the apparatus were attached to Henry's arms, legs and neck, while other cables and telesensors recorded the state of the vital parameters and the musical adapter was ready to sweeten our ears with any music that might be born in Henry's brain.

"Start," said Henry, and I switched on the apparatus.

For two minutes, we heard nothing. Henry lay with closed eyes, thinking about something. We stared in turn like idiots at one another. Mikhail's face turned apathetic. I can swear that during those first two min-

utes he forgot about us and our experiment. Then Henry's music began to sound in the adapter, the amplifiers carried it to our ears, Albert's apparatus seemed to come to life, the warning indicators began twinkling, multicoloured flashes illumined it from inside. For objectivity's sake, I must confess that at first I was watching the apparatus rather than listening, but the music soon took a hold of me entirely and, apart from it, nothing else in or around me seemed to exist.

After my report, you will yourselves hear Henry's music, so I will not describe it, the more so that I'm not a musician and I'm bound to get something wrong. I will merely say that in all my life I have never heard such sad and beautiful music. I don't know what instruments could have created that harmonious dirge, that inhumanly beautiful, inhumanly heart-rending wail. It came from everywhere, it erupted within me and out of me, everything sobbed enthrallingly around. I simply cannot find any other word than "enthrallingly", it is the only correct one, and I was enthralled. I, too, sobbed silently in time to the lament; it was not Henry's music any more, but the tormented soul of the whole world, and it was sobbing within me and with me, it was sobbing with the whole of my being!

The feeling that overcame me was experienced by all of us; we were stupefied, as it were, suddenly blinded, we could not see one another or Henry any more, and we surrendered ourselves wholly to the magic of the mournful music.

Suddenly, I snapped out of it. I don't know how I managed to break free of the cunning toils of that captivating music, but I came to my senses and saw that Henry was almost lifeless and that the graphs recording his vital parameters were all curving downwards.

"Doctor, he's dying!" I yelled and rushed to snatch the clamps off Henry's skin.

The doctor gasped and switched off the apparatus. His assistants fussed round Henry. One irradiated him with bursts from an invigorative pistol, another gave him injections, still another applied wet compresses to his cheeks and forehead, and yet another stimulated his nerves with electric discharges from induction coils. Five minutes passed before Henry opened his eyes. We lifted him up and set him on his feet, but he could not stand. We put him back on the couch, and again fussed round him, pistolling him, applying wet compresses, injecting him and torturing him with electric currents.

"What's the matter with you? What's the matter with you?" I kept asking.

He finally responded—incoherently, stopping in mid-word and repeating himself. Even after the terrible crash on Mars, even after being poisoned by that weird moss, he had never been so weak. He explained that while waiting for the music, he had remembered Albina and he had wanted to solve the mystery of her death again. He had succumbed to despair that she should have died so young, that he had been powerless to

help her and that he had not even understood the causes of her death.

Henry's story was interrupted by the sound of Mikhail sobbing loudly. The composer was writhing on the couch and was in floods of tears. I thought that he was feeling upset because of the music that had come from Henry, but Mikhail irritably waved me away.

"You don't understand! You're not capable of understanding!" he mumbled. "The biggest blockhead in the world is me! There was never a man in the world more untalented than I! There was only one genius, only one—Albert, and I know it now!"

"Give him a sedative ray bath!" I ordered the doctor. "And if that doesn't help, I'll fetch this numbskull a clout on the ear!" My nerves had gone to pieces and I was really in the mood for a fight.

Mikhail jumped up. His eyes were blazing with fury. I couldn't even believe that they were the sleepy eyes with which he usually surveyed the world.

"Albert was a very great genius, but he made a mistake, whereas I shan't. I shall succeed where he failed!"

He rushed out of the lab, shouting incoherently as he went.

## 6

It was only several days later that we learned the details of how Henry had been snatched from the jaws of death at the last

moment. Another two or three minutes of that lethal music and he would have been burned to ashes. This is not a figure of speech, but a grim fact: what struck Henry down resembled an internal burn more than anything else. The doctors, whether distinguished or ordinary, who came flocking round Henry's bed, explained time and time again that he was being treated for an ordinary burn of the internal tissues. I say "ordinary burn" and I smile sadly: in the whole history of medicine, there has never been a burn less ordinary than the one that killed Albert and nearly finished off Henry. I will quote only one fact to drive home the gravity of the event: during that hour-long music session, the energy drain on Henry's body was so great that he lost a whole stone in weight.

During those frantic days when Henry was battling with his illness, I forgot about Mikhail, who did not get in touch and did not even inquire after Henry's health. Perhaps he was afraid of meeting us again.

Mikhail put in an appearance about two weeks later. Henry was already allowed up, though not for too long; he would have liked to walk about more, but the doctors advised against this, and therefore I wouldn't let him. As for me, I both worked and slept in Henry's room, only leaving it for short intervals.

"Still alive?" was how I greeted Mikhail. "And we thought you'd succumbed to the music too."

"It's a lethal melody, but I've converted

it into its opposite. Tell me, how do you explain Albert's invention?"

I looked at Henry.

"You tell him," he whispered.

Henry and I had thought much about the incident, so that I expressed our joint opinion, not my own. I began by saying that man indeed fathoms his environment and himself not by reason alone, but also by the emotions, and the enjoyment of music is very important among them. The things of this world are not only seen and felt, they also smell and let out sounds. A special musical resonance in the human psyche corresponds to all objects in the world and to every combination. The Ancient Greeks talked about the "music of the spheres", and they were no fools. A poet once wrote:

*And everything resounds. You step on stone*
*or grass*
*As on piano keys.*
*And leaning against a tree-trunk,*
*shedding dew*
*To the stars adhering to the leaves above,*
*You, too, resound.*

The converse is also true: to each psychic state of man there corresponds a music that expresses that state. Needless to say, all these resonances, the symphonies of the external world, the musical rhythms of the psyche, are so weak that they are merely an indeterminate background noise of perception and reflection.

Albert had succeeded—and this was the

essence of his invention—in vastly amplifying the internal music of human insight and passions. But an invention also contains a threat. Not for nothing had nature hidden the music of feelings and thoughts in micro-resonances, dissolving it in a background of noise. Albert had opened a baleful Pandora's box containing the passions of the soul. In their natural aspect, the emotions are almost omnipotent; under their influence people rage, sob, yearn, fall into a frenzy, run wild and go mad. Amplified a thousand times in music, they kill. Any sensation, however tiny and inconspicuous, was turned into a powerful feeling by Albert's amplifier. Man cannot withstand great grief or great joy; man is harmonious, such is his nature—everything in excess is fatal to him. Albert himself, when testing out his apparatus, was burned up by a gigantic pleasure: even when he was dying, he did not realise that he was being destroyed. Henry was almost incinerated by his ever-smouldering grief for Albina, when sorrow grew from an ordinary feeling into something enormous and all-consuming. In order that there shall be no recurrence of any such tragedy, we shall now try to suppress Albert Simagin's ominous discovery...

"No!" shouted Mikhail. "You shall not do that. I won't allow it!"

"You won't? But we invited you as a musical expert, not as a supreme judge. Do you understand the difference?"

"Listen to me!" said Mikhail. "I only ask one thing of you: listen to me calmly. There's

no need to get so excited."

Mikhail talked incoherently and in haste, and I can't reproduce his disjointed speech word for word. He agreed with us: Albert's apparatus vastly amplified the resonances already existing in the psyche and made them truly dangerous. He was not intending to defend Albert's amplifier in its present form. But Simagin had made a great discovery: this must be reaffirmed, it must be shouted from the rooftops. Man's surroundings generate music in him, the music of the psyche intermingles with it—an amazing but, unfortunately, almost inaudible symphony is created in each man's soul. It is his own individual music, the music of his own perception, of his thoughts, of his feelings, and has not been imposed from outside by a composer. He, Mikhail Potapov, intended to make this music available, not by amplifying the passions of the soul, but by harmonising them. The soul invariably thirsts not for the multiplication of what is already there, but for opposition to it. If a man is turbulent, then everything in him craves pacification, if he grieves, joy; if he is uproariously merry, silence.

"Quench the passions?" I said. "Is that it?"

"No!" he protested. "Not quench, but harmonise, don't you understand? Make the incompatible compatible, stress light with shade. Complete, perfect harmony—and special for each person!"

"That's not a bad idea. How are you going to put it into practice?"

"I already have!" he announced triumphantly. "I've written an amazing piece, no one before me has ever... Compulsory music is over and done with now, there's only the kind that is created by the listener personally... It's called 'Your Own Symphony'. It will be publicly performed at a concert on May Day."

"We'll be there," I promised. "Henry will be better by then. But excuse us now, it's been a long conversation."

"By all means," said Mikhail hastily, but he did not leave. His face looked pathetic.

Henry glanced at me in surprise.

"As I was saying," I said impatiently, "we'll be there. Was there something else?"

"The concert won't take piace without your help," mumbled Mikhail. "The fact is that... I need Albert's apparatus. I'm going to modify it slightly... Some electronics engineers I know have promised... You understand?"

I turned to Henry. He laughed.

"Let him have it," he said with relief. "And let him make that damned machine a bit safer. To tell the truth, I'm scared to look at the thing."

## 7

There is no need for me to say anything about the first concert of individual music, since you all remember it. And you will, of course, remember the speech made by Po-

tapov before the concert. I merely add that Henry laughed and I was amazed. Mikhail conducted himself like a real orator. He launched a devastating attack on the music of past centuries, and this alone conquered the young tearaways who were beginning the affirmation of their personalities by the negation of all and sundry. This was when the public was first introduced to Albert's term, "compulsory music", now so commonplace that it is no longer even noticed as a term of abuse. However, the now universally accepted "individual music" was used by Mikhail only once or twice; he preferred to call it "free music" or "musical self-cognition".

As for the concert itself, I was bewildered because nearly twenty thousand people assembled in the hall were all silent and waiting for something. There was no orchestra and there were no earphones; there was only a small wooden box standing on the stage—Albert's apparatus in modified form. Individual music always comes over faintly to me personally; no doubt my appreciation of the world is more rational than musical. Mikhail often grumbled that I was a freak and his compositions were not for me.

But that entertaining music began making itself heard in me too. I've called it entertaining, because it was more comical in my case; the sounds laughed, especially when I looked round the concentratedly silent auditorium again. Once the concert was over, however, Henry said to me with a sigh:

"Those sad tunes again!" He saw my look of concern and added, "But there was nothing frightening about it, I could go and listen to that kind of music every day."

While we were making our way outside, I listened to the conversations round us.

"A gigantic work!" said one, smiling distractedly. "No, it was most impressive, it was almost supernatural! I've never heard such a magnificent symphony in my life!"

"I wept," admitted another man. "I just couldn't help it, the tears came streaming down my cheeks. It's incredible of Potapov to have based such a big work on variations on one funeral motive; but a gentle and beautiful one, that I can't deny."

"That was fun!" said a third delightedly. "If it hadn't been for my neighbours, I'd have gone into a dance; those cheerful little tunes were so nice. Did you like them?" he asked his companion, an elderly woman.

"Cheerful?" she asked. "I didn't seem to hear them." She shuddered. "I shan't go to any more concerts like that. The sounds were harsh and some of the motives were indecent. I felt as if I was being stripped of my clothes and whistled at. If one's going to listen to such music, one should be alone in a locked room."

"That concert should be listened to in bed, not in a hall," affirmed yet another. "An amazingly relaxing thing, you could sleep well after that."

However, I'm stating the obvious; you know as well as I do how individual music

affects different people. That it is no longer performed in public and has become a private form of entertainment is, in my opinion, natural. Mikhail, as you know, fought for a long time against the transfer of his individual music from the concert hall into the bedroom, but in vain; he saw it as a revanche taken by the compulsory classical music he hated so much.

## AMBASSADOR WITHOUT CREDENTIALS

### Chapter One
PHANTOMS IN THE STARSHIP

1

Roy jumped down without waiting for the automatic gangway to stop. A large-headed, red-haired man in space pilot's uniform was coming to meet him. This was Erastus Winkler, chief of the starport; Roy had seen him many times before during TV transmissions from Mars. The fear that had haunted Roy throughout all the days of the flight became intolerable. Winkler was in too much of a hurry; he was waving his arms about unnecessarily...

"Just tell me one thing!.." said Roy quickly.

"He's alive, he's alive! He's better today!" replied Winkler. "Didn't you get my last thought-gram, friend Roy?"

Roy sighed and ran his hand over his face. The operators of the investigation team appeared on the gangway. Most of them were seeing Mars for the first time. If it had not been for their dejected chief walking ahead of them, they would have hurried outside with shouts of joy to greet this planet that they were seeing for the first time in their lives. He himself had once jumped out of starships like that. He had been in a heavy space-suit at the time, not in light overalls, like the team members; but even the space-suit had not prevented him from shouting with delight, stamping his feet and rushing about in all directions... Much more restrained in their behaviour, they merely stood silent and unmoving on the gangway steps, looking excitedly around them.

Not answering Winkler, Roy too gazed about him. A dismal, rocky plain, an eroded plateau. So many times already had he roamed those monotonous fields without discovering anything new, however far he might go. Mars is Mars; it's no place for a permanent home, just a stopover point, an entrepôt, as they call it in the ships' logs, a dismal world devoid of the capacity for change, an unsuccessful model created and discarded by nature. What was there to look for here? What was there to fear? The unexpected was impossible on Mars—hadn't they been taught that in the training schools? How could a disaster possibly occur? Anywhere else you cared to mention—on Earth, Venus, Pluto—but not here!

"He's delirious as before," said Winkler. "I also sent his fever visions over the thought-line."

Roy looked in silence at Winkler. Tall, red-haired, with hazel eyes and a golden brown face—a Venusian, not a Martian tan—in a brand new, very smart uniform, the chief of the starport executed a bow just a little more deep and a little more courteous than was required. He was feeling guilty. The crash had taken place in the effective zone of the planet's braking mechanisms. It had been his duty to stop the stricken ship and throw it back into space, to convert it into a satellite of the planet until help arrived. He had done nothing of the kind! But no, that was all nonsense! Everything would have been only too simple if the fault had lain with Winkler. Roy hadn't flown to Mars just to grab a negligent interplanetary flight-controller by the scruff of the neck.

The tiny sun was flooding the low hills with a red glow. The sun was also somehow indifferent to this luckless world. Roy remembered Andrei Korytin's lines about the sun: "Tormenting Venus, blowing up Mercury, you glance coldly at Mars, you merely glance at Mars—such a sun is never ours." Andrei had spent eight terrestrial years on Mars, and only half of that time had been enough for him to hate the planet. Even now it was better not to mention Mars with Andrei present, it would straightway put him in a bad mood.

"I also sent a message, friend Roy, to the

effect that I was not allowing anything to be touched on the scene of the planet-ship crash." Winkler's voice was duller. He was sure that the investigation team was prejudiced against him.

"I wouldn't have behaved any better in his place," thought Roy reproachfully of himself. "He must be calmed down. Let him give an explanation without trying to justify himself." Roy looked round again. The young operators were eagerly opening their mouths, the artificial Martian air smelt of ozone, and such air only occurs on Earth after a thunderstorm.

"We had breathing trouble when I was here last," said Roy. "We used to take oxygen apparatus with us for a walk. We can manage without such things now."

"We've started up our third atmosphere plant. It adds several thousand million tons of air up to the highest standards annually. The position's worse with water, but we're adding to that too. And we've started planting out caliopis trees, specially created for Mars."

"So greenery's appeared, has it?"

"We call it 'reddery': the plants here are reddish in colour. We hope that forests will murmur here soon."

"Mars has always been a planet of silence. Andrei Korytin thought it was the only attractive thing about the place."

"I think they'll soon be talking about Martian storms, second in violence only to the hurricanes on Venus. If you're interested in our meteorological..."

Roy interrupted Winkler with a gesture. "I received all your thought-grams. We'll talk about them later. Take me to my brother."

## 2

Henry was lying with closed eyes, motionless, emaciated, his dark lips ominously prominent on his pale face. Even after Albina had been killed, when Roy had feared for his brother's life and sanity, Henry had never looked so ghastly. Roy put his hand on his brother's chest, trying to detect the beating of his heart. His hand was too weak a sensor: life could not be detected without amplifiers. A red curve summarising the patient's vital functions wriggled across the recording chart suspended over the bed. It was three centimetres higher than the black line below; life was flickering dangerously close to extinction.

"Twelve per cent of the normal energy expenditure," said Winkler, noticing Roy's glance at the chart. "It was only three per cent in the first few days. The electronic doctor detects a swing towards recovery."

"The eyes," said Roy thoughtfully. "Those wild eyes... I'm talking about the visions of his delirium..."

"You know, friend Roy, automatic doctors on the planets are not as advanced as the medical apparatus on Earth. I'm afraid we registered only some of the morbid scenes

that flashed across your brother's mind."

"And that are still doing so, presumably."

"Yes, but, unfortunately, we've no way of finding out about them."

"We'll find out about everything. I've brought apparatus with me that makes it possible to transfer the weakest thoughts and visions into an open recording."

"I'm very glad!" said Winkler with relief. He was trying to show his eagerness for an exhaustive investigation.

Roy knit his brows. People remain people whatever service uniform they may dress up in, but there are problems more important than someone's personal responsibility. Winkler spotted Roy's mood and quickly took himself in hand. His facial expression and his calmly restrained voice now showed that he was ready to help the investigation team from Earth even if their conclusions should be against him. Roy, incidentally, had not been expecting any other attitude.

Roy stood up. Traffic on the space routes had been halted. Each minute not spent on the investigation was wasted. He could not help Henry in any way. But it cost Roy an effort to take his eyes off his brother.

"As far as treatment is concerned, you can rely on our electronic doctor," said Winkler sympathetically.

"Yes, of course. Especially since we have no option anyway. Let's go, friend Winkler." Roy was still unable to force himself to call the chief of the starport by his first name,

as was customary among workers in the space service.

"Are we going to the scene of the disaster, or will you have another look at the recordings of the delirium?"

"Let's start with the recordings while they're unloading the apparatus."

3

Henry's brain functioned spasmodically; the infrequent visions were haphazard and blurred, with neither beginning nor end; a flying bird of a kind that doesn't exist on Earth or the planets; misty clouds whirled round, at times everything disappeared in mist; someone, possibly the pilot, hurried through the ship's lounge; stars glittered in the dark windows, Earth dwindled rapidly to a bright spot the size of a big pea, one of many points in the sky. The second passenger lay on the couch. He was also from Earth, Archibald Spenser, astrobotanist; he was often to be seen in the same position, lying with his hands behind his head, his eyes staring at the ceiling, a very ordinary-looking man: average height, average weight, expressionless face, dull eyes. Henry did not look hard at Spenser, he simply kept glancing at him indifferently. And suddenly everything changed; whatever images were filling Henry's brain at that moment—the lounge, the stars, the pilot hurrying through the lounge, the second passenger—everything suddenly vanished in the enormous eyes that glowed

piercingly on the screen. They captured all Henry's brain cells, in his dim consciousness there was nothing now but those merciless, gigantic eyes, more like searchlights than sensitive human receptors of external light; and yet they were eyes, not instruments. Henry's memory had retained the lashes, the lids pushed up into the hollows under the brows, the hue of the iris, the lustre of the cornea, and the pupil. No, they were eyes alright, frenziedly glittering at someone's face—human eyes...

Roy sighed. During the whole week of the flight they had been transmitting such pictures to him from Mars.

"Not much there," said Winkler, as if apologising.

"Maybe our apparatus'll add something," muttered Roy.

One of the operators came into the hall.

"The patient's brain radiations have been fed into the instruments and the basic waves and overtones are being detected," he said.

"Have the recording reproduced here," requested Roy. But the same pictures appeared on the screen again and many were even weaker than the former ones. Henry's sick brain was calming down and the memories were losing their former hectic brilliance. Only one picture was new: Spenser suddenly began raising himself from the couch, his face distorted, his eyes filled with horror. It was probably the moment when the ship had gone out of control and had begun diving down towards

the surface of the planet, with the safety force-fields of Mars unable to decelerate it. There was no continuation to the new picture; it did not develop any further, but broke off. Spenser disappeared, as did the lounge and everything in it. In the growing darkness, the same eyes appeared and again there was nothing else in Henry's consciousness.

"By the way, the planet's outline hasn't been preserved in Henry's visions," said Winkler. "Yet we not only made frantic efforts to generate braking fields, we tried with all the power of the space beacons to warn the pilots of the impending disaster... The passengers must surely have rushed to the windows, they must surely have seen where they were heading for."

"You mean things were happening inside the ship to shake the people on board so much that none of them looked at the planet rushing to meet them?"

"I didn't say none of them. I'm talking about your brother. The pilot and Spenser are dead and we shall never know what they saw."

"Let's go and have a look at what was happening inside the starship when its automatic navigation system failed," suggested Roy, rising from his chair.

Winkler's eyebrows shot up in astonishment.

"I don't follow you, friend Roy. Our stereocameras recorded all the circumstances of the crash. However, if you need repeat shots of the wreckage..."

"We're not going to repeat your shots. The inner walls of the starship were lined with a film that preserved the images of everything that happened inside. Every inner piece of the starship is the story of its flights, a portrait gallery of the people who were on board. Such films can only be developed under emergency conditions. Our case is one such emergency. And I have armed myself in advance with the appropriate authorisation."

"It's the first time I've ever heard of such films," admitted Winkler.

"They're not publicised. Recording films are intended only for accident investigations."

## 4

The operators continued assembling the apparatus: there were many instruments, some of them bulky. The ship's wreckage was lying in a crater gouged out by the starship. When the starport's safety force-fields had failed, the panic-stricken starport workers had used the last resort—an explosive discharge of gas: only that had saved the falling ship from being atomised. During those tragic seconds, Winkler had acted quickly and competently. This was becoming clearer and clearer to Roy.

In the cockpit, the only place on board where a fire had broken out, the recording film had been destroyed. In the engineers' compartment and in the cabins there were still some sections of wall intact, but they

recorded only the humdrum life of the ship; not one of the images developed could be related to the crash.

"Let's take a look at the lounge," said Roy.

The operators set up their receivers in the middle of the debris. Roy and Winkler put on optical decoders. In general, the decoding of the film repeated the visions of Henry's delirium: two passengers in a small oval-shaped room, the only people aboard a small cargo ship that did not usually carry passengers. Roy saw Henry. His brother was looking curiously out of the window—he was more interested in the stars and the approaching planet than in his neighbour and he did not turn to look at Spenser. The minutes dragged on in this way, seeming unbearably long. The two in the lounge were silent: one was thinking about something with his eyes fixed on the ceiling, the other was staring out of the window.

"The disaster begins in five seconds," warned the operator, looking away from the instrument.

The accident burst in with a suddenly changed picture of the lounge. Henry recoiled in alarm from the window, where a rocky grave was already rushing towards the starship, now out of control. Spenser was raising himself very slowly in view of the wildly accelerated events—from the couch; his lips were trembling convulsively and he was warding something off with his hand... At this point, everything went dark. The film

on the undamaged bulkheads had not recorded any more objects or people; in the blackness, the same mad eyes lit up that had tormented Henry in his delirium.

Roy called over one of the investigators.

"The film has survived, but there's no record of the accident. Why didn't it record the fall of the ship as well? "

"The recording suddenly breaks off," the man replied. He seemed disconcerted.

An engineer and a physicist came up to Roy with diagrams. The engineer held out his recording.

"This is a summary of the commands from the starport and the ship's automatic responses. We've looked for incorrect instructions from the planet and for navigational mistakes."

"What have you found? "

"The instructions from the planet were correct and the actions in response were precise."

Roy looked hard at the scheme. The mooring programme coincided with the mooring of the ship. Everything had happened according to schedule, precisely as dozens of previous accident-free occasions... Winkler sighed. That sad sigh meant, "We did absolutely everything that was demanded of us. And yet, there you are, it happened..."

"We've taken the measurements three times," continued the engineer. "We laid on a control check, then we checked again. I can't draw any general conclusions, but, according to our data, there should have been

no disaster. It happened, but there's no explanation for it."

Roy turned to the physicist.

"Did you find no deviations from the normal either, Armand? "

The physicist ignored the sting in the question. Armand Laluba worked in Roy's lab. He was a great friend of Henry's and liked to be ironic himself when the occasion warranted it. He was a serious research scientist, which was why Roy had brought him along.

"I can't make head or tail of it, Roy! " Armand flourished his notes excitedly. Everything he felt was vividly expressed on his dark face with its negroid features. "Goodness knows what these damned readings are trying to say. I've checked them three times too. No deviations, you say? That's putting it mildly! "

"So, according to you too, the ship wasn't smashed to pieces? The commands from the planet were correct as were the responses? "

"The correctness of the commands and the responses is not my pigeon. But I can guarantee that the responses occurred instantaneously. And that's inconceivable, Roy! It's not even incredible, it's unthinkable! Physics turned inside out! The Day of Judgement on the grand scale."

"Steady on, Armand! " said Roy in annoyance. "Responses are supposed to occur immediately after the reception of the signal. Navigational apparatus on a starship is inertia-free, isn't that so? "

"Immediately after the *reception* of the

signal, yes! But these worked immediately after the *transmission* of the signal."

Armand handed him the standard diagram plotted along the time axis—commands, responses, commands evoked by responses. Roy had examined such recordings dozens of times, the standard navigation form from which it was possible to judge the precision of the starport's work, the reliability of the ship's apparatus and the efficiency of the flight-controllers and ships' commanders. These were handed out at examinations in the training schools so that the time-lapse between signal and reception could be used to estimate the distance between the ship and the starport, the braking speed, and the mooring curve...

In the schools, it was considered sufficient if the time was measured with an accuracy of up to a millisecond, but here it was given in microseconds. The blips on the curves, however, showed that just when the ship was within three hundred thousand kilometres of Mars and the signals from the planet should have only been received every second, they suddenly began arriving simultaneously with the moment of transmission. Even one millionth of this interval would have been registered by the control instruments but there was not even one millionth! Time had virtually ceased to exist for the ship's receiving apparatus. And the moment when time disappeared was the moment when the instruments recorded the beginning of the disaster and Henry suddenly jumped

back from the window. The ship flew for another two minutes and fourteen seconds after that and then dived into the brown rocks of Mars; but those long minutes existed neither for the landing gear, nor, perhaps, for those on board, nor even for the impartial recording film on the lounge walls...

"Note this, Roy." Armand poked his finger at one point, then at another. "Time ceased to exist only for signals from the planet; the answering signals from the ship were received in exactly the time taken by light. A howling disparity, total discrepancy! And as a result, the ship is destroyed! "

"D'you think these readings give an accurate picture? "

"Who d'you think I am, Roy? How can anyone possibly believe something that contradicts all the laws of physics? "

"So the measurements are incorrect? "

"No, no! The instruments show what's there. The most realistic reality is physically impossible. That's what we've got to think about! "

Roy reflected. Speeds faster than light, the instantaneous transmission of signals across space! Or a one-sided disappearance of time: forward—there is no time; back—time exists?

"Very odd! " Roy handed Armand back his recordings. "Phantoms on board a starship, eyes without a face... Time suddenly disappears, speeds are faster than light! Smacks more of old-fashioned sci-fi melodrama than science, that's what I'm saying to you, friends! Let's go to the morgue."

## 5

It was with a heavy heart that Roy left the table on which lay the sheeted bodies of the pilots.

"Did you know Spenser?" Roy asked Winkler. "He was flying to Mars at your request, wasn't he?"

"No, we didn't know him. We asked for an astrobotanist for the spreading of Martian vegetation. We were informed that they were sending a specialist on non-terrestrial plant life to Mars."

Spenser seemed asleep, not dead. There were no marks on his body, the waxiness had hardly settled on his pale-yellow face. And again Roy was struck by the external appearance of the astrobotanist, inconspicuous almost to dullness: everything was commonplace, nothing impressed, nothing even attracted the attention. But if they were human, those eyes that had filled Henry's visions and had imprinted themselves so malignantly on the recording film on the bulkheads, they could only have been the eyes of Spenser, who was now lying on the table. Roy scrutinised the dead man, forcing himself to imagine what could have happened: Spenser had half-raised himself, something had shocked him, his eyes had glittered... Henry had recoiled from the window, had staggered backwards, had started shouting... Yes, yes, Spenser could, of course, have terrified the impressionable Henry, but a tape has no nerves, yet it too had recorded

those advancing, dilating torches—to use a more precise description.

"You know, friend Roy," said Winkler in astonishment, "it seems to me that Spenser has somehow shrunk. Maybe I'm wrong, but his body was longer and more solid. Could it really have shrunk so quickly? And another thing: the gamma-analysers showed that his brain was badly damaged: ashes instead of brain cells..."

Roy went up to Spenser, lifted one eyelid, then the other. The eyes were small and dead; the dirty, pale-blue irises had dulled, they didn't reflect the light any more, it looked unlikely that they could have given off any radiance in life. Ghosts don't exist, every child knows that. But there had been a ghost in the starship; not a mythical phantom but a physical phenomenon! A material, tangible ghost! Truly there were no easy answers.

"I've brought some containers of neutral atmosphere," said Roy. "Have the victims transferred to them, my friend. It'll protect them from shrinkage and putrefaction."

## 6

Roy had dozed off at his brother's bedside. He was woken by a light touch of Winkler's hand.

"The team have finished their investigations. The victims have been transferred to the ship. You can rest in our hotel, friend Roy."

"I'll rest on board ship," muttered Roy.

"Tell the lads to dismiss to their cabins."

"Will you open our starport?" inquired Winkler hopefully.

"Only Earth can give that order. Don't forget, we haven't solved the mystery yet."

Winkler agreed with a sigh that important decisions mustn't be rushed when the possibility of the tragedy repeating itself had not been averted. Roy laid a friendly hand on Winkler's shoulder. The starport chief had all his sympathy.

"By the way, friend Roy," said Winkler, "Earth is laying on a transmission to the planets. Artemyev is to repeat his new art programme, "Gorillas at the Space Console", and Korytin will be reporting on the latest astounding discoveries made in his lab."

"I'm no fan of Arthur Artemyev's work," said Roy. "As for Korytin, Andrei's lab makes astounding discoveries every week. He doesn't acknowledge any other kind."

Roy went outside. Armand was sitting in the starport's airbus and studying a strip of calculations. Roy walked past him. It was a four-kilometre ride to the starship. The sun was declining towards the horizon; it set on Mars twice as slowly as on Earth, but Roy remembered that darkness used to fall immediately after its disappearance, and even before the sun had gone down behind the rocky crust of the not so distant horizon, the sky would be sprinkled with stars, bigger and much brighter than the ones seen from Earth, but remote and lifeless, like everything else on this lifeless planet.

Certainly there had been many changes since his last visit! The denser atmosphere fostered not only stunted vegetation, but twilight. Evening, not night, fell after sundown. It soon faded, but it was dusk: the darkness thickened in the north, the west burned, red and blue glowed overhead, the colours shimmered across the sky as over heated metal. The stars shone through them; they no longer looked like dismal lights dropped into the monotonous blackness; they had acquired life, they glittered; they seemed either to be falling or soaring upwards.

A dark patch was moving up from the east: it engulfed Phobos and veiled Deimos. Roy stopped: it was a real cloud, something that would have been unthinkable on Mars before. He watched until it had melted away. Not very bright, with little resemblance to Earth's enormous Moon and much faster moving, the two satellites hung over the plain. It seemed to Roy that, justifying their names, they were escorting him: Phobos, meaning fear, was marching in front, and Deimos, or terror, was lurking behind him. But they too had lost their former unconcealed starkness and precision; they were moving through a transparent haze, ringed with radiance, like the Moon. Roy remembered that it was the distinctness of outline, the sharp borderline between the brilliance of the satellite and the blackness of the sky that had impressed him most in the early days. Soon there would be nothing to be impressed by on Mars except possibly its rapid transformation

from a dead ball of rock into a convenient space hotel.

Roy was overtaken by the airbus. The operators were sitting in the lounge; Armand, as before, was absorbed in endless calculations. The airbus, soundless as a bat, raced past without braking; one of the operators waved to signal that Roy must hurry. Roy shook his head. They were speeding back to the ship so as to have a refreshing radiation shower and enjoy Artemyev's tall stories and Korytin's discoveries. Roy did not feel like giving up his solitary walk over the rocky plain in order to listen to Artemyev and Korytin.

When he looked back on that night on Mars, Roy never ceased to be amazed that by a strange whim he hadn't wanted to know about events that were of crucial importance for the investigation of the disaster. "Everything would have gone differently if I'd shown more curiosity," was how he reproached himself although, without doubt, things could not have taken a course any different from the one they were already following.

## Chapter Two
### TWO BODIES OF ONE MAN

### 1

Henry sent his brother a letter. Only very fit people could stand a full course of treatment in their sanatorium. He was feeling

bad. The treatment was too much for him. Henry asked Roy to take him home. Roy promised over the stereotransmitter to carry out his brother's request when the doctors gave a guarantee of recovery; meanwhile he must grin and bear it.

Roy tried to make his reproof sound cheerful; he spoke with a smile. Since Henry had already recovered his sense of humour, his brother would not be offended that his request had been met with sympathy but remained unfulfilled. In accordance with the hospital regime Henry was supposed to be sleeping at this time. Roy had chosen the time on purpose. When he woke up, Henry would watch and hear Roy on the stereoscreen and there would be no one to argue with.

Armand came quickly into the room. He was incapable of walking slowly. And when he was excited, naturally, encountered difficulties in the apparatus-crowded labs. As he admitted himself, only three things could destroy his peace of mind: failure, success and lack of either.

"It's all been done, Roy. Your friend Korytin wanted to boot me out of the lab, but then his wrath gave way to mercy. He will be here soon. Will you comment on the deciphered images yourself?"

"I've had enough worries dealing with Andrei. If you think he'll be any politer with me, you're wrong. How about the identification of Henry's brain radiations?"

"Nothing new. You don't realise the amount of work involved, Roy. It means

sorting through eleven thousand million wave characteristics! It wouldn't be an easy job, even for the most perfect machine. And I'm not convinced that your theory's correct. Henry could still have had a brilliant inspiration of his own accord. And if someone really was stimulating Henry's visions and passing on his own discoveries, then we shall certainly find that person... But here's your friend. Get ready for fireworks."

Puny, almost a head lower than Roy, thin-nosed, with a narrow, bony face and big, dark, always shining eyes, Andrei Korytin burst, rather than walked, into the room. Bluntness and good-nature, rudeness and kindliness were combined in him so inseparably that only people accustomed to Andrei's oddities knew how to get on with him.

While still in the doorway, he shouted something angrily, shook his fist, warmly pumped Roy's hand, cast a fierce sidelong glance at Armand, did not sit but collapsed into an armchair and began talking heatedly, nervously: as usual, a stream of disconnected sentences came pouring out.

"You look excellent, it's a great pity your assistant, I mean him," and he jabbed his finger at Armand, "talked nonsense about diseases, otherwise I'd be hanged if I'd have come here. Since you've dragged me out, talk, I can't bear it when people goggle their eyes, it's disrespectful, in a word, I think..."

Roy burst into such sincere laughter that Andrei stopped dead.

"You don't think, you erupt! Give me two minutes' peace, please!"

"Three!" granted Andrei magnanimously. "You won't fit it all into two; you and Henry are diabolical gasbags, if it was the antediluvian twentieth century outside, not the civilised twenty-fifth, you'd be reading tattered textbooks, talking in lectures, section one, chapter two, paragraph four, and, incidentally, Henry is less talkative, it's a pleasure being with him, he knows how to listen, not like you, it's a pity he's had that accident, I wanted to go and visit him, I must, must call on him, let's fly over, I'm free just now, how about it, one, two, on your feet!.."

"We're starting!" Roy signalled to Armand.

Pictures of the disaster on Mars flashed up on the stereoscreen. Andrei, who was on the point of jumping up, sank back into his chair. He was a poor conversationalist, but an excellent observer and a thoughtful analyst. Long discussions about the known or the insignificant aroused his irritation; impatience made him jabber away at nine to the dozen in order to shake off an uninteresting subject. When confronted with the unknown and the unexpected, however, he concentrated hard and his questions became precise and succinct. Roy had been counting on this peculiarity of his when he had conceived the idea of recruiting Andrei for the investigation into the disaster on Mars. Andrei was bound to be interested in the baffling physical phenomena that Armand had brought to light.

Even so, the reason why Roy had invited

Andrei over had nothing to do with arousing his friend's curiosity. In his scientific work, there was little in which Andrei wasn't interested. He was one of those who often proceed from problem to problem. He used to say of himself with pleasure, "If I stake a claim on an idea, it's mine, but there are plenty of keen types without me ready to work the whole vein until there's nothing left but grains!"

Roy once had to cooperate with Andrei. The memory was not particularly pleasant. Andrei would either get carried away or lose interest; he'd dazzle his colleagues with the keenness of his thought on mere commonplaces, or would dismay with his unconcern, astonish them with his indifference in those flexible lines of research in which—Roy was firmly convinced of this—room was only just opening up for scientific activity. Andrei Korytin had a remarkable ability to leave the main road of experimentation and follow up any bypath that he happened to notice. He was fascinated by the incomprehensible as such, by the incomprehensible in general, not by the specific riddles of specific subjects. If Roy had been able to manage without Andrei, he would not even have thought of him.

But even in the starship, on the return journey from Mars to Earth, Roy realised that Andrei was indispensable. Only in Korytin's lab could the riddle of the crash be solved. It was the only lab equipped with the highly sophisticated apparatus necessary to check

the extra-temporal transmissions. Korytin was the man he and Armand needed, who, incomparably better than they, could get to the heart of the phenomenon that had caused the crash. "For what Andrei, the scientist, can give us, we shall have to come to terms with Andrei, the man," sighed Roy, thus summing up the situation for Armand's benefit.

"The time discrepancy between the commands from the planet and the ship's responses fully accounts for the catastrophe," said Armand, commenting on the pictures on the screen. "But such an explanation, in its turn, raises a mass of complex new problems..."

Andrei interrupted him with an impatient gesture.

"New problems—rubbish! The pulsating flow of time is nonsense, they don't understand physics properly in your institute, time never disappears anywhere! And faster-than-light speeds are not to be ruled out. I recently gave a broadcast on that subject: we must keep our ears skinned for new ideas..."

"We heard your announcement on Mars," said Armand politely. "And it struck us how close your research is to the phenomena that we've come up against. I mentioned this to Roy back on Mars."

"I didn't hear your broadcast," admitted Roy. "I was so shaken by what had happened to Henry and by the horrors I saw in the morgue... That your work could throw light

on our riddles is something I was unable even to imagine at the time..."

"I know, and I expected nothing else: the imagination requires an effort of thought, and you were always lacking that, Roy, I speak as a friend, you think too slowly, and *that won't do any more. Wait, let me finish!*" he shouted in response to a gesture of protest from Roy. "I didn't come here to discuss you, so don't put me off. The disaster on Mars does indeed interface with our work, your assistant is right, only don't interrupt, I hate being interrupted!.. We have made the greatest discovery of the age, and I won't renounce that formula, it's absolutely exact. I lost all peace of mind when I found out that two and two make four!"

"But didn't you suspect that earlier?" Roy knew what Andrei meant, but he could not resist poking a little fun at him.

Andrei was no ordinary mathematician. He could manipulate Ngoro series with ease and he was familiar with Petrovsky's most complex supermatrices "not only by sight", as he himself claimed, "but by hand".

*"You're a boor, Roy! Or d'you expect an* instant transmission of higher mathematics to come from the Centaurus-3 cluster on the periphery of the Galaxy, almost twenty-thousand parsecs from the Sun? We must be thankful we've managed to decipher that too."

He began enthusiastically telling how they had received a remarkable message from a distant globular cluster. That day they had

been testing a big deciphering machine that broke up the total light flow into individual photons. "The most advanced receiving station ever built by man!" exclaimed Andrei. "The light in it is used as a propulsive mass, but not as a signals carrier. Light travels too slowly for space communications. The Universe's rational civilisations are separated by thousands, hundreds of thousands, millions of light-years. Mankind will grow old and perish and the Sun will go out before an answer is received from our colleagues in Outer Space to the question set by means of light at the dawn of civilisation. Civilisations in Outer Space will not choose anything as slow as light for "an agent of communication, for it will certainly doom any attempts at acquaintance to failure".

"But you yourself have been saying..." interposed Roy.

"No I haven't! You have a revolting habit of breaking in with silly questions, just listen and shut up!"

Roy didn't ask any more questions and Andrei returned to the big deciphering machine. In their own lab, they had already decided to examine all aspects of electromagnetic radiation arriving from space as a channel for the distribution of an incomparably faster agent, of interstellar communication. To clarify this, he gave the following example. Light is like a railway line of ancient times. The tracks were built slowly, but fast trains used to speed down them afterwards! Light takes thousands and millions of years to

crawl from star to star, from galaxy to galaxy. Once it has done that journey, however, it becomes a connecting track down which high-speed agents can be sent that do not move independently through space. Interstellar communication then becomes virtually instantaneous. Incidentally, Andrei went on, faster-than-light waves were discovered back in the twentieth century; they were then called waves of matter. It was established that they did not carry energy, and interest in them waned. Our ancestors imagined that all aspects of energy were limited to the ones they knew about. Their mistakes, however, were not repeated. Later on any monstrous proposition was accepted for verification.

"We've tried everything, Roy! But only the deceleration of light gave results. Don't look incredulous, Roy, I know your objections. Yes, light is slow, but when? When it's crossing the gulfs of space! But for the films on which it is recorded, it is too fast! The frequency of light oscillations even in the visible spectrum is so great that all human knowledge, thousands of millions of ancient books and millions of tapes could be fitted into a ten-minute transmission! Now imagine information from a faster agent in that same stream of light, and the whole mass of human wisdom can be squeezed into a transmission lasting a microsecond. How we're going to catch its beginning and its end, not even to mention deciphering it in full! Here's what we have to do: to slow light down so as to reveal the faster-than-light

transmissions in it! We are now receiving radiation by the photon: a candle lit as far away as Vega—that's how bright it is. Then, naturally, amplification, recording, analysis... And the diagrams have shown the call signs of the first extraterrestrial civilisation that undoubtedly surpasses the terrestrial in level of development. Our stellar neighbours, as you know, are a long way behind us. And this is the pulsation: two-two-four, two-two-four..."

He had finally said his piece and was silent.

"Is it a one-off recording, or is it repeated?" asked Roy mistrustfully.

"You're a crank, Roy. Is it possible to be sure that two times two make four if it isn't constantly repeated?"

"And nothing, apart from that mathematical truth, has been received?"

"Nothing so far. It's a call sign: what more do you want of a call sign?"

"How do you explain that the main transmission hasn't been received?"

Andrei's language became slightly less colourful.

"There are thousands and thousands of possibilities... But the most likely is that we are not weakening the light enough. The call signs and the main transmission can't proceed at the same rate. The call signs are slower, and only then can they be detected by relatively insensitive instruments, not all civilisations are equally advanced, after all! But interest has been aroused, the deed's been done, it's known on the receiving stations that it isn't just light, there's infor-

mation in it, and we must fine-tune the apparatus to hairline detection!"

"Are you preparing to check this supposition?"

"We are, we are, and the experiment will be very complicated!" Andrei turned to Armand. "Come with me, get ready quick!"

Armand looked inquiringly at Roy. Roy grinned.

"Just like that? What do you need him for?"

"I don't, it's him who needs me, all of you do, you're interested in faster-than-light transmissions, after all. Extratemporal, as you are fools enough to call them; but only in my lab is there suitable apparatus available."

"We will avail ourselves of your permission, but first we'll show you Henry's latest morbid visions."

Andrei twitched impatiently.

"I've had enough of Artemyev's delirium, it is not for Henry to get to such rubbish all the same. If you don't want to go to the lab, let's fly to the sanatorium. I'd be glad to have a look at Henry in person, but I haven't time for your pointless spectaculars."

"You won't regret the time spent on those spectaculars. The fact is that Henry did an amazing computation in his delirium."

## 2

Colours and outlines kept changing on the stereoscreen; it was like a painting by a mad artist—a world of multicoloured phantoms,

a space dotted with explosions, figures that were more like diagrams than living beings. It soon became clear that these were thoughts, enciphered not into words or drawings but into something else—a semi-material, semi-symbolic thought process.

Armand supplied the commentary, jabbing the pointer at the screen.

"That is a violet cloud of biological upheavals swirling there; decipherment produced a fantastic picture of weird beings. Take note of the silhouettes sweeping turbulently past; they are the demons of physical laws. It took the institute's machine six hours to deal with them, although it can compute a journey to Sirius in two hours. Result—schoolroom physics; Henry himself could just about get top marks, no higher. But those red serpents crawling about in a lilac mist are more interesting. Look closely at the sinuosities and the crests on the bodies... After decipherment, all these overtones of cerebral radiation turned out to be the ramifications of a Ngoro series."

"Let's see your results!" demanded Andrei impatiently. "The snakes aren't of any interest, give us the maths!"

A mathematical structure glowed on the screen: an interweaving of premises, a sprinkling of consequences, the generalised pattern of the result.

"You see there," said Roy triumphantly, "the formula for the movement of three gravitating bodies round a common centre. Moreover, Henry deduced the formulae for

any number of mutually gravitating bodies, but they are too complicated to show on the screen. All the calculations are correct..."

Andrei jumped to his feet and began pacing excitedly about the room.

"This means that Henry has made a discovery denied to every mathematician that ever existed!" he shouted, stopping in front of Roy. "He is the most brilliant living genius on Earth!"

"He's no mathematician," objected Roy with annoyance. "Much less a genius. We checked Henry's mathematical aptitudes very thoroughly."

"You mean to say..."

"Yes, just that! He's average. Henry is about as capable of creating a new maths as a turnip is of sprouting ears of corn."

Andrei looked in amazement at Roy.

"Then has his brain served as the receiver of an alien thought process? Has it become a battleground for ideas not his own?"

"It looks like it."

"Then he exists, this genius, this mathematical colossus who had achieved an enormous result but transferred it into your brother's brain instead of publicising it himself! So what are we to do? We must bring him into the open at once!"

"We're searching," said Roy glumly, "for the unknown person who tuned his mind in on Henry's brain emissions, or for an unknown phenomenon that transforms a rank-and-file Earth-dweller into a scientific prodigy... We're seeking the answer to

the disaster on Mars, for netiher Armand nor I have any doubt that the starship crash and the miraculous occurrence of mathematical abilities in Henry's mind are links in the same mysterious chain."

## 3

Henry was limping with the aid of a stick down an avenue in the park. When Roy and Andrei flew in, he waved to them joyfully and quickened his pace, but his legs were still responding badly. Roy ran up in time to stop his brother falling.

"Isn't it too early for running? You should be lying down as much as possible."

"It is, but as for everything else, I'm fit," replied Henry cheerfully.

He lowered himself on to a bench. Roy and Andrei sat down beside him. Andrei looked at his friend in silence. Henry had lost weight and his nervous, once mobile features had acquired a waxen rigidity that was in strange contrast to the eyes, which were as lively as before. Henry grinned: he knew what he looked like.

"When a man disintegrates, Andrei, it's hard to reassemble him again," he said.

"Yes, of course, of course," agreed Andrei hastily. "It was a weird crash, simply weird! And so many riddles, so many mysteries, so many shocks..."

And he fell silent again, not taking his frightened eyes off Henry. And the silence of his usually voluble friend showed more

clearly than words how terrible Henry was looking. Henry was even pleased by this. His poor external appearance matched the horror of the disaster. Henry would have been only too delighted if Andrei had found him in the pick of condition: he had been oppressed by his illness, especially during those first days on Earth when, on regaining consciousness, he did not know whether he would recover fully and was thinking with apprehension about the future.

Just now, every cell in his body could feel the return of health, the future was bright, his ghastly outward appearance no longer corresponded to his inner condition; it only testified to the depth of the pit from which he had extricated himself. Surprised to catch himself thinking this, Henry felt pleased that he had frightened Andrei so badly.

"I'm going to keep quiet about riddles and shocks," he said jokingly. "You're more of an expert than we are at telling what's amazing and what's normal. But to lie so exhaustingly in bed for nearly a month to no good purpose, when other people..."

To Andrei, Henry's answer seemed not a joke but a complaint, and he protested to prevent Henry from wallowing in self-pity: self-pity is no aid to recuperation.

"Don't, Henry... Why 'to no good purpose'? You created so much to stagger the imagination when you were ill!.."

Henry smiled sadly.

"You mean my transformation into a great

mathematician? That's over now. I fell ill with genius and clambered back to normality."

"Even so, they're your discoveries," murmured Andrei.

"Hardly. My sick brain somehow became a receiver for alien secrets, and besides, I'm a bad receiver. I blurted them out straightaway. And anyone who really is giving birth to great thoughts bears them within him. Isn't that so, Roy?"

"For the time being you can claim copyright," said Roy cautiously.

"That would be too simple a solution, Roy. And you yourself were trying to prove that nothing is more futile than the search for simple solutions. You can't imagine, Andrei, how Roy tortured me with questions, inquiries, interrogations as soon as I was capable of giving an answer to anything at all."

"And what was the result?" asked Andrei cautiously. "I mean..."

"I know what you mean. My memory went blank just when Spenser started raising himself from the couch. I've no idea what happened after that."

Andrei asked Roy with a glance whether further conversation about the crash would be bad for Henry. Roy had turned away and did not catch Andrei's glance. After a moment's hesitation, Andrei went on asking questions, but tried to talk a little more slowly and watched Henry's face as he did so, intending to stop questioning him if he

showed signs of distress at some recollection or other. But Henry answered calmly, now shrugging his shoulders, now smiling bewilderedly, now looking pensively into the distance—such was his usual manner of conversing. Andrei gradually calmed down. Henry was the same as ever, in spite of his changed and wretched appearance.

"Your mind has preserved many pictures, though, hasn't it, Henry?"

"I know it has. Someone's wild eyes. They imprinted themselves on my brain, not on my consciousness. The pictures are intriguing, I still look at them with interest on the screen, but I feel as if they have nothing to do with me."

"What can you say about Spenser?"

"The same as about the crew: virtually nothing. We met in the dining-room and the lounge, but we hardly ever spoke to one another."

"Was the flight normal?"

"Strictly according to schedule. If the trip had ended favourably, I would have described it as remarkably boring."

Looking up, Roy stared absent-mindedly at the leaves. Summer was changing to autumn: it was that special time of year when the air is muffled and drowsy, the leaves scarcely rustle, the birds don't call to one another. The park was empty; the convalescents were evidently resting in their rooms. Andrei ran his eyes round the already yellowing leaves and said with astonishment:

"You know, Henry, September is a fine

month and I've always loved it; but I've even got to the point of forgetting what season it is outside. I fancied it was still spring. It's so beautiful!"

The hint of a mocking smile appeared on Henry's face. He was smiling in a different way, with more restraint, more dryly.

"That's happened to Roy and me too, forgetting what season it is outside. Tell me about your achievements, Andrei. Your laboratory gets more mentions over the air than any other. So you've discovered a new galactic civilisation? Sensational, sensational!"

Andrei was always willing to expatiate on his own work, but just now he wanted to distract Henry. And he knew how interested Henry had always been in what was being done in his lab.

"Not a new civilisation, the only one. There are plenty of extraterrestrial civilisations, but the one on Centaurus is far superior to ours. They have a means of communication still beyond our reach, and all faster-than-light..."

"Not so fast," appealed Henry. "I haven't got the old speed of my reactions back yet." However much Andrei may have been carried away by his story, he noted that Roy was making cautious signals. Andrei jumped up from the bench, breaking off in mid-sentence:

"You'll learn the rest when you leave here, and by then we'll have collected fresh observations. Get better! Get better!"

Henry was left alone in the park. Roy

walked slowly as long as Henry could still see them, then quickened his pace.

"It was silly to hurry off like that!" said Andrei, disgruntled. "Could my explanations have done any harm? I don't understand why you didn't let me finish; he was interested, after all..."

"Quick! Quick!" Roy was no longer walking, he was running to the aircab parked at the entrance. "I've had a thought-gram from Armand. He says they've detected brain radiations with the same characteristics as Henry's when he was ill."

"Man? Machine?"

"Man. And he's in the Capital."

## 4

When Armand was agitated, his swarthy face turned darker. It now looked coal-black. Armand shouted something irritably when he saw Roy and Andrei. Roy guessed that he was swearing. Armand prided himself on knowing the old oaths, curses, swear-words, charms and insults. He often, when experiments were going badly, used to give vent to his feelings in the old imprecations. Roy considered that to relieve one's emotions in that way was still better than throwing instruments about, which was what the hot-tempered Henry did from time to time.

"I asked you to hurry up! Couldn't you have had the rest of your talk afterwards?"

"I didn't want to take the transmitter out

of my pocket in front of Henry and I didn't hear everything. So you've found him, then?"

"We haven't found him, we've lost him! We intercepted him and were just getting his bearings when he went dead."

Punctuating his story with exasperated interjections, Armand told how the institute's SUM, or Small Universal Machine, had picked up signals with the same muddled characteristics as Henry's sick visions. The sanatorium's electronic doctor had reported that Henry was chatting peacefully with his brother and a friend in the park and that his brain was working on the usual frequencies. Just at that moment, the signals stopped. The brain generating them had suddenly gone out like a light.

There had been nothing substantial in the radiations detected, just the usual functioning of the brain. Perhaps the person had been reading a book, or enjoying something on the TV, or talking to someone. But after barely a glance at the muddled curves, Roy spotted that the characteristics coincided with Henry's brain recordings. Many times with excitement, alarm and delight he had scrutinised identical curves—strange lines, convulsive upsurges and headlong dives: some were evoked by serious illness, others testified to brilliant flashes of insight...

"If you're in a hurry to get back to your own place, I'm not detaining you," said Roy to Andrei, who was studying the images curiously. "We can resume our chat tomorrow."

Roy tried to make the request to leave them sound authoritative. It was possible to talk to Andrei about his discoveries, but he was not the person with whom to organise a hunt for an unknown being whose mental functions copied Henry's delirious visions so uncannily. Andrei was useless as an investigator. Andrei thought differently, however. His pale face went red.

"Certainly not! We've got to the most interesting part and you start talking about tomorrow! Don't worry, I won't interfere!"

"Then sit still and be quiet," said Roy. "We're going to consider every possible variant in minute detail, Armand. The first possibility, in my opinion..."

"Yes. The radiating brain left the zone where its work could be intercepted."

"To put it more precisely, the source of the radiation flew out of the Capital."

"That's not on. The emission would have weakened with distance, but the curves break off abruptly."

"The person fell asleep?"

"The same objections. When a man dozes off, his brain continues working for a time, you know that as well as I do."

"Death?"

"Not very likely. There would have been an explosion, a restructuring of the whole picture."

"I can't think of anything else," said Roy.

"I can!" shouted Andrei. "There's another possibility. Now listen to me, I'll make it very simple and short..."

"Yes, short, please."

"He's switched over to a different mode of brain generation, that's all! Want more details?"

Roy agreed to hear him out. Andrei insisted that of a person who could redirect his mental activity to someone else and, moreover, who could implant the capacity for great discoveries in another person's brain, one might also expect an ability to change brain radiations. True, such phenomena had not yet been encountered; it was considered that each person thought in the characteristics created by his genes, but now we would be able to deepen our knowledge, that's all there was to it.

"I like your 'That's all there is to it'," said Roy with annoyance. "Was a fool, became a genius and turns into a fool again—that's what your 'that's all there is to it' amounts to!"

"What of it? Every incredible phenomenon demands an explanation."

"But it has to be credible, Andrei! To explain means to attribute a strange phenomenon to rational causes. If we accept your version *pro tem*, then it means someone in the Capital generated in Henry's brain characteristics and, having changed his own brain—I can't think how to put it any other way—vanished from our field of observation."

"There's a possibility of finding out whether previously there was anyone with Henry's brain characteristics among the population of the Capital," said Armand. "Our machine

is now scanning encephalo-passports in the archives."

He dialled a call to SUM and shook his head when the reply came back.

"Roy, the machine has checked and found no one who could have generated in those characteristics. It verified the mental activity of several millions from the moment they were born."

"And the transient population?" asked Roy. "People on assignments, visitors, tourists?.."

"That's more complicated, but it can be done too. The machine is scanning hotel archives."

"Andrei and I will fly to the hotel complex," said Roy, "and you can send us the answer by thought-line."

Andrei went ahead of Roy and was the first to get into an aircab and take off. Roy was only climbing above the trees of the institute park when Korytin was already soaring over the roofs of the skyscrapers on the Big Ring, waiting impatiently there for his dilatory friend. Andrei was not only showing keenness, he was seizing the initiative. Roy, incidentally, was not surprised: the urge to be uppermost was indestructible in Andrei: he didn't particularly want to stand out, he just couldn't help it; he was not one to play second fiddle. When he finally saw that Roy had reached the necessary altitude, Andrei waved angrily for him to put on speed and then shot ahead.

They raced over tracts of forest, streets

and boulevards. There were many pedestrians below, but even more people were airborne. Not one of those walking along or flying could be the person they were seeking; a change in brain characteristics was an altogether impossible operation, and all the more so in a matter of a few minutes. Roy understood this, but the incongruous thought kept returning.

"This improbable idea has really got a hold of me!" he muttered with a grin.

At that moment, Armand shouted twice over the thought-line, "Sector six, block one, twenty ninth floor, room one hundred and sixty-one!" Roy relayed Armand's message to Andrei.

"We're touching down on the mooring balcony of the thirtieth floor!" shouted Andrei.

The hotel complex, the district of the Capital's highest buildings, was situated on an island in the centre of East Lake. The island itself was small, only a kilometre square, but, since it had been built up with houses half a kilometre high, it looked from the air like a conglomeration of gigantic hulks towering over the comparatively low landscape—the dwelling houses round East Lake were not more than forty floors high, and only on the ring boulevards were there buildings somewhat higher. The complex was divided into six equal sectors, and in the centre of each one soared a two-hundred-storey block.

It was to one of these blocks that Andrei

directed his aircab. He flew up to the two-hundredth storey, but then glided downwards. Each tenth storey was girt by a gigantic balcony serving as a landing pad. He touched down on the third from the bottom. Roy accelerated and overtook Andrei when he was alighting from his aircab. Andrei, jumping over three steps, ran down to the twenty-ninth floor and raced along the corridor to the automatic floor supervisor. This was a metal panel on which flashed the multicoloured indicator lights and the red digits of the services being rendered. A pleasant-looking woman's face appeared at the reception window and answered in a friendly voice. The latest hotel robots were programmed so that men were addressed by a feminine image and women by a male one; the designers claimed that this avoided much irritation.

"Romuald Harrison, yes, Romuald Harrison," said the supervisor courteously.

"It's enough to drive you crazy!" roared Andrei delightedly to Roy as he came up. "D'you know who lives in that room? My colleague Harrison, a lad from Pluto, a marvellous expert on multidimensional extra-algorithmics!.. My dear, you haven't made a mistake, have you? Twenty-seven years of age, two hundred and twelve centimetres in height, light blue eyes, single, specialist on *n*-dimensional disorders."

The automat confirmed everything.

"Yes, from Pluto, twenty-seven years of age, height two hundred and twelve centi-

metres, weight eighty-nine kilograms, single."

"Why isn't he in the lab?" asked Andrei, suddenly annoyed. "The devil take it! As soon as I'm absent from work, my colleagues start to play truant. True, he was sick for a week, but he got better. He hasn't fallen ill again, has he?.. You haven't made a mistake, have you, my dear? Is he in his room?"

"He came out in the morning, stood in the corridor for a while and went back in again."

"I'll show him! Give him a call!"

"Harrison is not answering calls, friend."

"How d'you mean, not answering? Try again!"

"Don't!" Roy put his identity token down on the reception table: it was only issued to those who had the right to carry out a search in the Capital. The token disappeared into the iron bowels of the supervisor and returned again.

"At your service, friend!" said the automat in a quite different tone of voice.

"The key to Harrison's room!"

A key appeared on the table. Andrei snatched it up.

"I'll run on ahead!"

He disappeared round a bend in the corridor.

When Roy approached the room Andrei came rushing out. He was struggling to say something and couldn't. Roy grabbed his friend by the arm.

"What's the matter? What is it? Speak up!"

"Get a doctor!" babbled Andrei. "Harrison!"

Roy ran into the room and turned the medical call lever on the wall—Andrei had forgotten about it in his panic—and then looked round. Someone covered with a sheet was lying on the bed. There was a note on the table. Roy read it: "Andrei, forgive me, it's the only way out."

"Is this really your colleague, Harrison?" said Roy.

"It is, it is! Such a terrible death!" whispered Andrei with an effort.

"Dead?"

"Put a bolt through his ear. From a lab discharger—eight thousand volts!.. Death instantaneous, absolutely instantaneous... And your Armand says death is hardly likely..."

"Was it you that covered him up, Andrei?"

"Yes, me. He looked so horrible!.. I threw a sheet over him and took to my heels."

Roy pulled back the sheet. The unnaturally contorted body of a man of medium height. Roy recognised him at once. He had studied this man and thought about him dozens of times.

"What's the matter with you?" shouted Andrei in fright. "You've gone so white!"

Roy lowered himself on to the settee. His trembling legs would not support him.

"Andrei!" he said with an effort. "Say it again—who is he?"

"Romuald Harrison! Isn't it obvious?"

"Are you sure? Answer me, are you sure?"

"Absolutely! Me not know him? And his

note to me, didn't you see it? It's him, it's him!"

The trembling in Roy's legs was getting worse.

"This man," he enunciated slowly, "is Archibald Spenser, whose body I brought from Mars."

A doctor hurried into the room with two stretcher-bearers.

## Chapter Three
### OLLIE THE MONKEY

1

First, they had to attend to the formalities without delay: they had to explain to the doctor how they happened to be there and what they had seen in the room; Armand had to be summoned to the hotel; they had to shout at Andrei, who had fallen into despair again to take himself in hand; for all the keenness with which he had volunteered to help, he was definitely no use as an investigator. They had to explain to Armand—with the same incoherent haste—that they had failed to reach Harrison in time and he had committed suicide; they had to ask the doctor to send the dead man not to the common morgue, but to the institute's own morgue and put him beside Spenser's body, for the two victims would have to be identified, and

when the doctor and the stretcher-bearers took Harrison into the corridor and put him in the automatic ambulance, available on every floor, they must hurry after them and escort the medical airbus in an aircab.

"You can go with us," said Roy to Andrei who, in a state of total collapse, was watching as his assistant's body was carried out of the room. "But you'd do better to go back home and take a radiation shower."

When Armand looked at Harrison, he also immediately recognised him as Spenser. This upset Andrei even more. He shouted exasperatedly that no matter how much they tried to prove it, he couldn't admit that one man could exist in two bodies.

"It's a matter not of existing, but of dying in double form," objected Armand glumly.

Andrei could not calm down.

"Listen, try to understand me," said Andrei to Roy almost pleadingly as they walked down the corridor after the medical team. "I'm going back to my own place, you're right, this sort of thing is not for me, you investigate the wreck and the disaster, there are dead all over the place there, you're hardened to it, my job is to study the stars, it's a different thing entirely, please understand! But how can you say that isn't Harrison? As if I don't know Harrison, my best colleague, my right hand, the most distinguished researcher on antilogic! How can he become someone else? How, I ask you?"

"I can only assume: he wanted to put his

creative understanding of illogicalities into practice," replied Roy glumly. "I agree with you, there's no human logic in one person appearing in two images, as they used to say in ancient times." He looked ironically at Andrei. "But for a specialist in antilogic, for a theoretician of the lunacy of nature, everything impossible is possible. There is system in any madness, and for the insane themselves, that madness is the norm."

"They're twins!" announced Andrei heatedly. "I can assure you that Spenser and Harrison are twins. You'll see that for yourself when you fly to the morgue, I don't doubt it for one moment. I positively demand that your Armand should consult Reference immediately..."

"I have no wish to offend my colleagues. I am sure that Armand has already sent all the necessary inquiries to Reference without any instructions from me."

When Roy and Andrei went out on to the balcony of the thirtieth floor, the medical airbus was just taking off. Armand's aircab raced after the medics. Andrei suddenly changed his mind. He must see the mysterious Spenser with his own eyes and compare him with Harrison. He jumped into his aircab and sped after Armand.

Roy was not in a hurry to get to the morgue. Just now they were laying one baffling corpse beside another baffling corpse. The specialists had already been summoned. They would need time to formulate their conclusions and he didn't want to be in their

way. He had a few quiet minutes in hand in which to think. There was no need to explain, command, take urgent decisions; he could think without acting.

Harrison and Spenser... Perhaps they really were twins, but it was hardly likely. Even twins don't have absolutely identical brain radiations. And they were so alike as to be indistinguishable. Both had met with a tragic end. Both had been connected with Henry, each in a different way, but connected with him for all that. Henry and Spenser had been the victims of a crash. It couldn't be ruled out that Harrison had been involved in the crash too through Spenser and Henry, with both of whom he had been connected, though with each in a different way. Spenser and Harrison were both links in a kind of single chain. A sinister chain! Who was controlling it? Whose evil hand had sealed the fate of those two unfortunates?

There was no answer to a single one of these questions. Nor was Roy eager for an immediate answer. Even back on Mars, he had persuaded himself not to expect any easy solutions. He must look for unexpected and unusual answers, the kind of which people say, "Inconceivable!" Only such solutions would correspond to the complexity of the phenomenon. Roy smiled grimly. It would be a good idea if he familiarised himself with Harrison's development of antilogic. He might indeed find something there, more relevant to the case than the logical constructs of the others. He had been ironic

about this with Andrei, but could the matter be limited to irony alone? What if nature was being ironic about itself? Roy shook his head. He was going too far. In any madness, there is not only system, there is measure. Which meant that there are also laws governing madness.

One thing was definite: never before had he ever come up against such a difficult problem. There had been profound mysteries in the past, there had been involved riddles, there had been appalling incidents, but they had all remained within the bounds of reality: the result of a tragic collision of known forces and factors, the dramatic fruits of the violation of regimes and rules, the irruption of spontaneous elements into planned activity. There had been many of the strange and terrifying events that are called "incidents" in the calm language of official reports. The destruction of spaceships on touchdown and lift-off and during flights, the loss of lives on distant planets and the loss of lives on Earth. All that though was something else. But two bodies of the same man, the sudden transformation of an ordinary person into a genius and a "relapse into the commonplace"—what could be the normal causes in this case?

" 'Supernatural', as our ancestors used to say when they didn't understand something," muttered Roy. "Very well, very well, we won't make broad generalisations prematurely."

He landed the aircab at the service entrance to the university clinic, from which it was the

shortest way to the morgue on the tenth level below ground.

The two bodies were lying on floodlit tables, and the experts were bending over one of them. Roy saw Andrei and Armand among them.

Andrei hurried over to Roy.

"Horrors, Roy!" he exclaimed, nervously squeezing his hands together. "You're right, they're not twins, they're not even related. But what an amazing resemblance, what an impossible resemblance!"

Roy looked inquiringly at Armand as he approached. Armand silently handed him a note of the answer from Reference. Spenser had been born on Earth in the year 320 New System, on a spring day of 9 May. Harrison, a native of Pluto, had spent his childhood on that remote planet, had been to school there and had only come to Earth when he had reached university age. But there the difference between Harrison and Spenser ended, if one also discounted their different professions: one was a mathematician, the other an astrobotanist. Everything else coincided: height, weight, colour of hair and eyes, and general appearance. Reference had even pedantically noted the birthmarks on identical places on the neck and back. And although they had been born of different parents, they had been born on the same day of the same year.

Roy stared hard at the note, vaguely conscious that he was holding the answer to the riddle in his hands. But that answer was

encoded in incomprehensible symbols that had themselves to be decoded first.

"There is a difference between them," said Armand, "but not a physical one. Different parents, different places of birth, names, education. In general, their life stories differ, but in every other respect, total coincidence!"

Roy went up to the group of medical men. There was not, however, total coincidence in the external appearance of the two dead men. Spenser was smaller than Harrison. This was so obvious that Roy referred to the note. It read: "Height of both identical— 2 metres 12 centimetres". But Spenser was at least ten centimetres shorter.

One of the medical men, Kon Araki, noticed the bewilderment with which Roy was looking at the dead men, then at the note, then at the bodies.

"We're amazed at that too," said Araki. "Spenser is becoming mummified, although he's been sealed in a neutral atmosphere. (His body was lying in a transparent sarcophagus.) We didn't think he was going to lose weight so fast. This is probably something to do with the unknown peculiarities of his death."

Roy remembered that back on Mars, Winkler, the chief of the starport, had been struck by the rapid shrinking of the body. Evidently, even the special atmosphere, suspending all the reactions in the cells of the corpse had proved relatively ineffective in this case, another oddity pointing to the unusualness of this tragic incident.

"Like you," said Roy to the medic, "I don't know why the corpse is losing weight so quickly, but it seems to me vital for the investigation of the crash. Isn't it possible to preserve the bodies in their present state? This goes for Harrison especially."

"We'll try. We have more powerful means of preservation than a neutralising atmosphere."

"Is it definitely impossible to reanimate Harrison?" inquired Roy, just in case.

"Definitely, friend Roy! The body is virtually undamaged, but the brain doesn't exist any more; all the cells have been carbonised. We'll send you a detailed report in about two days."

Roy nodded and went away. Armand said that he would stay with the medics until they had finished examining the body. Andrei cast a farewell glance at Harrison and caught up with Roy. They went out into the garden in silence. Roy gently laid his hand on Andrei's shoulder.

"I sympathise with you from the bottom of my heart. You've lost a friend and a good worker..."

Andrei's face was contorted with anguish.

"Why sympathise with me, Roy? Everything is far more dreadful! D'you know what I'm thinking about? It was a suicide, right? But just explain to me why Harrison had to die when there was no reason, no reason whatever. After all, I knew him well!"

"There were reasons, and important ones, probably," objected Roy gloomily. "I'm

afraid Harrison was living a kind of double life and you never even suspected it."

Andrei called an aircab, said he would be expecting Roy and Armand at his place and soared aloft.

Roy walked out on to the radial street, turned off it on to the ring boulevard and found a bench in a shady spot. It was a good place to sit and reflect. High over the trees flew solitary aircabs piloted by citizens hurrying about on business, stately airbuses full of tourists and high-speed sports cars. The air was crowded at all levels permitted to traffic. A similar bustle would have been revealed underground had it been possible to lift the upper crust and see all the "minus levels". But on Earth's visible surface there was an astonishing and deeply moving tranquillity.

At first, Roy took the silence for granted: evidently, no low-level wind had been scheduled for that day; not a single leaf trembled on the limes and maples, even the eternally restless poplars were not rustling and the thick grass on the lawns stood stiffly upright. Then the pleasing thought occurred to him that as mankind went deeper and deeper underground and higher and higher into the sky, the surface had finally been left, if not in peace, at least for peace. He remembered that it was the first day of the Indian Summer. Engineers from the Central Meteorological Office understood well the meaning of the ancient terms; they had pedantically translated the shades of meaning from a long

obsolete dictionary into the language of contemporary meteorological concepts. No, they had translated with inspiration, he corrected himself with surprise: the charm of the day had suddenly come through to him.

The sun had emerged from behind the high-rise block of the hotel complex and, hot, exhausting, intoxicated with itself, was tracing a downward curve across the sky. It had been raining that morning; the first day of the Indian Summer always began with rain, with freshness. The mighty saps of earth were coursing through the veins of the grasses and trees, erupting into the open air as intoxicating perfumes. Roy drank in the narcotic aroma of Earth. It was truly an Indian Summer—the season of ripening fruits. He closed his eyes; his head was spinning slightly and his thoughts were confused. He had no thoughts any more, there was only a sensation of fulfillment, a renunciation of worldly matters, a release from cares, without the burden of which true peace begins.

"Oh, good, how good it is!" he murmured.

And when the word "good" reached his consciousness, and stung him with its untimeliness, and reminded him that the good was a long way off and that there was nothing good in the meantime except this magnificent day, created not so much by the free whim of nature as by the planned exertions of the meteorologists, he lifted up his voice and stubbornly repeated, like an invocation:

"Good, it's impossibly good!"

## 2

Henry walked from bench to bench and from instrument to instrument, touching each one with pleasure, running his hand tenderly over the switching scheme and familiarly slapping the panels of the command machines. He stopped in a corner and ran his sparkling eyes round the lab.

"You're yearning to get back to work, aren't you?" commented Roy.

Henry sat down next to his brother.

"It's awful, Roy! I've already lost faith that I'll ever get back to a normal life."

"The medics on Mars and on Earth didn't consider you a hopeless case, for that matter."

"It was me that lost hope. What are you going to lumber me with? What are you working on just now?"

"It would be easier to say what we aren't working on! This is the Special Space Problems Lab and 'special' is coming to apply more and more to accidents in space... As for Armand and me, we're working on your case: why did you only just miss getting killed?"

"And what did I recover for?" Henry frowned. "I'll hardly be a good assistant to you on this problem. The ancients used to say that the hardest thing of all was to know oneself."

"But they also said that self-knowledge was the prerequisite of any other knowledge. However, I never doubted for a moment that you would choose a theme yourself and,

inevitably, not the one recommended to you."

Henry laughed. Even before, quick changes from a bad mood to a cheerful one and back again had been usual with him. After his illness, the sudden changes of mood had become more acute. Thinking about the best way to handle his brother Roy had decided to tease him lightly, but not to contradict him. If he met with no rebuff, Henry would easily "cool off". That trait of his had been preserved.

"If an active part in the investigation is too much for me, at least I want to take an interest in it," warned Henry.

"There's nothing against that," agreed Roy.

"In that connection, I have a lot of questions for you."

"Let's have them."

"Has it been proved that Harrison and Spenser were one person?"

"It's been proved that they cannot be distinguished physically."

"In what way are they different?"

"In their life stories."

"How am I to understand their physical identity?"

"Literally. Identical twins, although from different parents. The omniscient SUM nearly went electronically cuckoo when it processed their data, and by the third inquiry it was already getting them mixed up."

Henry thought a moment and then continued:

"Why was Spenser flying to Mars? You

explained, but I've forgotten."

"To study the energy of Martian vegetation. The physicists thought it an important subject."

"What about his double? They were not acquainted? Of course, if we don't proceed from the supposition that they were both one being."

"They are now lying side by side, and their resemblance is throwing the medical students into quite a flutter. That there are two bodies proves that they are different beings."

"What is the meaning of Harrison's suicide note?"

"No one knows."

"Andrei might; the note's addressed to him."

"He hasn't the slightest idea what Harrison meant."

Henry was again silent for a moment, thinking.

"Have the faster-than-light speeds of the commands from Mars been proved to be such?"

Roy shrugged his shoulders.

"I would put it more cautiously: it has not been proved that the signals were being transmitted with the speed of light. The instantaneousness of the transmission is still the only explanation for the mystery."

"But it contradicts the laws of creation, Roy."

"The known ones, yes... I must remind you that the crash itself also cannot be explained in terms of the laws known to us."

"The instantaneousness of transmission brings us back to Andrei's works. D'you consider them well-grounded?"

"It's not for me to judge of such problems. The general opinion is as follows: a transmission has been intercepted, but whether they are the call signs of another civilisation or the result of a natural process that accidentally led to the repetition of arithmetical rudiments is not known. The idea that reception takes place with the aid of a faster-than-light agent is at present nothing more than a brilliant hypothesis. Andrei is preparing a decisive experiment. He has invited us to familiarise ourselves with his apparatus. Will you come?"

"Willingly. One more question, Roy."

"If you like."

"Have communications with Mars been restored?"

"Only goods traffic. Passenger travel in exceptional cases only, and tourist travel is cancelled for an indefinite period."

"I can imagine how they must be urging you to get on with the investigation, Roy!"

Roy grinned gloomily.

"Boyachek calls me every day. You've really given us some work, Henry!"

Armand's smiling face flashed up on the screen.

"Congratulations on returning to your native scene, Henry! Roy, are you a devotee of delirio-art? The greatest dream-maker of our time, Arthur Artemyev, asks to be received immediately."

Henry looked in bewilderment at his brother.

"I didn't know that my visions would inspire you with a love of artistic delirium!"

"If Artemyev has shown up here, then he has come for reasons of his own that are nothing to do with me," replied Roy.

"Be more polite to him, Roy," advised Armand. "He's a celebrity and a character—according to his reputation!"

A round, mobile man sailed into the lab. Roy courteously went to meet him.

## 3

Armand's warning had been superfluous; Roy and Henry both knew perfectly well whom they were receiving. In the strange realm of art known as dream-making or delirio-art, Arthur Artemyev had long been acknowledged as the leading master and something by way of a classical visionary. True, he had not yet brought out a complete collection of his dreams, but only because even now, although getting on in years, he was still systematically producing dreams as vivid as those of a child, and in terms of plot very harmonious (a complicated and controversial plot was an important creative technique with Artemyev). "An academic edition of my deliria will only be possible after my death," he affirmed. Even so, the annually updated spool of "The Selected

Delirio-Visions of Artemyev" was not gathering dust on the shelves: to the young, with their craving for extremes, Artemyev was a favourite author. Moreover, the technique of delirium with Artemyev was so refined that his dreams were translated directly from sleep without need for a draft recording or "final polish". Even the great Jackson, creator of delirio-art, could not have boasted of such mastery.

Firmly shaking his visitor's hand, Roy began the conversation by thanking Artemyev for coming to their lab.

"True, we're a long way away from your branch of technology," said Roy, as he gave him a seat. "But generally speaking, Henry and I understand how important your..."

Artemyev, of small stature, rather fat, with short arms that reached to his hips, with a puffy face and such brilliant eyes that he seemed not to be looking but to be illuminating with them, interrupted Roy impatiently. He began to speak jerkily.

"Rubbish!" he barked. "What's technology got to do with it? Delirio-art is not for you to understand. Your own personal dreams... You observe, I experience, clear? I ask you, is that clear?"

"Quite clear," said Roy reassuringly.

The brothers found the famous dream-maker's aggressive impatience entertaining. Henry cheered up, moved nearer, and was about to say something when Artemyev interrupted him.

He hadn't come to the institute to indulge

in idle talk. Gossip was a means of communication among the insane who called themselves normal, that is, ordinary people. The dream-makers only communicated with one another through dreams. He rambled on for about three minutes, then worked in a roundabout way up to the reason for his visit. He had been the victim of a misfortune. When other people suffer a disaster, that is their personal drama, but the failures of the skilful dream-makers are a disaster for all, for creative delirium is a product enthusiastically demanded by the viewers. His services were known to all. After Jackson, there had not been a dream-maker so skilled and so versatile, so all-embracing and original, so profound and attractive, as, finally... In general, such a master, was what he wanted to say...

"You are referring, naturally, to yourself?" inquired Roy tactfully.

The dream-maker's eyes flashed malignantly.

"Not to you, certainly! In the field of dream-making, you have not yet..."

From further explanation, it became clear that the dream-maker's misfortune amounted to an unforeseen loss of originality. Recently, after a cheerful walk in the mountains, he had started work without resting, that is, he had fallen asleep. According to the habit of many years standing (and also, he added, in conformity with Point Three of his contract with the TV Art Directorate), a retranslator attached to his bed had trans-

mitted his dream over the air. The dream had been colourful and impressive.

"You saw it, I gather?" said the dream-maker, looking closely and suspiciously at the brothers. "I can't believe you didn't... My work is so popular... About gorillas in the Universe. It was repeated for the planets."

"I heard about that broadcast, but we didn't see it," replied Roy. "I was investigating a crash on Mars at the time and my brother was lying unconscious. They tell me it was a gripping show."

"Yes, that's true, a gripping dream. In a laboratory crammed with apparatus, roughly like this one, a gigantic gorilla roared in a human voice, 'We did not send for you! You bring death! You will perish too! Beat it! Quickly! Quickly!' And the gorilla himself was amazing, and even more amazing were the mysterious machines, and still more amazing were the flashes of lightning that darted out of the ape's shaggy head at every gesture it made. Moreover, it wasn't shouting in words, but in lightning discharges, it was thundering, not talking, that was how it came out in the TV show. People shrank back from their screens, two women fainted and they wrote to the studio about it personally. It wasn't just that they were nervous women. The art of a good dream-maker grips and torments, saddens and delights even the most phlegmatic!"

"In short, you may be congratulated on having created a new delirio-masterpiece," said Roy politely.

Yes, he was to be congratulated, that's how he felt himself about this blasted dream, it was a success, although it brought many disappointments as well. A short, weird little episode, an essay in the fantastic—that's how he saw the work, briefly and accurately entitled "Gorillas at the Space Console". But on the next day there was a shower of letters and the phones started ringing in the TV studio: exactly the same dream had been recorded in the fourteenth and last spool of the complete collected works of dreams by Jackson, and even the title was similar: "Monkeys in Space"... Do the brothers, he asked, realise the tragedy of the situation? The most original dream-maker of the present age was slavishly copying the decrepit delirium of a half-forgotten old master, a genius, of course, but as antediluvian as the ichthyosaur! What could there be in common between him and old Jackson? In what way could the visions of a long decayed man be repeated in the brain of a contemporary dream-maker? That was the task that he was setting the brothers and that was why he had come to see them. Henry and Roy solved the riddle of the death of Fred Redlikh, they recovered the proof of Fermat's great theorem, and now they could do a bit of work on the riddle of the transmission of delirium from one brain to another. The literal repetition of the same vision across a hundred years after its first translation. It was the greatest mystery of the age and he was not afraid to put it in those terms!

When the dream-maker had finished, Roy said cautiously:

"Perhaps there is no mystery. You once came across Jackson's dream and it impressed itself on your memory..."

Artemyev stopped him with an outraged gesture.

"No! A thousand times no! I didn't mean to say... It will be awful if the TV critics find out..."

Roy shrugged his shoulders with indifference.

"To solve a riddle, we have to be certain that it actually exists. I don't feel any such certainty."

The dream-maker began stumbling on almost every word.

"The fact is that... Originality of visions—is quite priceless... Anyone else's vision has such a dreadful effect on me... Even a master becomes an imitator." He recovered his spirits and snapped, "I have never seen that dream of Jackson's. And I don't know his other ones. That is the whole truth of my attitude to Jackson."

"But can you swear that his visions didn't become known to you through some other medium than the stereoscreen?"

"Yes!"

"I mean books, stories by dream-makers..."

"Yes, I tell you! I don't read books and I can't stand stories about dreams unless they are my own. Originality is a delicate blossom, it must be shielded from outside influence. I can, of course, assume that you will set to work at once on my problem?"

Roy shrugged his shoulders.

"Unfortunately, that doesn't depend solely on me. And I'm afraid..."

Henry, who had been silent so far, intervened at this point.

"You can rest assured, friend Arthur, that we shall begin carrying out your request this very day."

"We have so many urgent and important problems," said Roy reproachfully to his brother after he had seen the dream-maker out. "D'you really mean to get yourself mixed up with that rubbish?"

"How am I to take the word 'rubbish'?"

"The usual way, normally, as is generally accepted! Rubbish, otherwise drivel, piffle, vacuity, lies, trash, senselessness, stupidity, hogwash, tripe, balderdash, twaddle, bunkum... More detailed explanations required?"

"There's something that impresses me about that man," said Henry thoughtfully. "I'm also no lover of dreams for public consumption, but a great many people are keen on them, and why? What is it that they find so gripping? And it is odd, you will agree, the unexpected revival after a hundred years of a far from standard show, not flights round planets or encounters with visitors from outer space, in general, widely distributed subjects..."

"There's nothing odd about it. The dream-maker is lying. He's a plagiarist. He knows Jackson's work."

"And what if he isn't a plagiarist?"

Roy made a gesture of irritation.

"Is this your way of announcing that you will not be taking part in the investigation of the crash? Then get on with your dream-making, but don't put Armand and me off our work."

"I wanted to suggest just that division of subjects," said Henry peaceably.

Roy replied with an angry look. He knew ancient history far better than his brother and frequently worked the old words into his speech. The one he loved most was "prophetic". He used to say that it smelt of secrets, harboured mysteries, excited the curiosity and stimulated meditation. Roy never even suspected during the argument with his brother after Artemyev's departure that it would not be long before he himself would describe Henry's impulse to help the dreamer as prophetic!

## 4

Three days later, Henry asked Roy and Armand to come and see him.

"I want to demonstrate the dreams of Jackson and Artemyev so that you can compare them. Treat this as relaxation if you still don't want to take part," said Henry.

Two shows followed on the stereoscreen in sequence: the one from the fourteenth reel of Jackson's collected dreams, and the one Artemyev had talked about.

"Your opinion?" asked Henry as he switched off the screen.

"Above all, they're different," said Armand, the first to answer. "Artemyev deliberately has entertaining dreams, he amuses us with nightmares, but even when dreaming he doesn't believe in his dream. Artemyev's delirium is a well-developed craft. But Jackson's visions are artistically convincing."

"Show Jackson just once more," asked Roy.

Amid cubic mechanisms, monstrously incongruous silhouettes rather than objects, a hideous gorilla with a contorted face and timid, frightened eyes was darting about in all directions and howling. Flashes of lightning were shooting from its head to strike the cubes of the mechanisms and be quenched in them. The thunder of the discharges formed into words: the words were not threatening, but pleading. The old monkey, darting in and out of the weird apparatus, was urgently warning someone of danger; its hands clutched this cube or that one by turns. Then, suddenly, digging all its nails into its shaggy poll, the ape despairingly shook its bowed head from side to side and the tears streamed from its eyes... The sobbing broke off as abruptly as it had begun, and again the monkey hurled itself now at one pile of cubes, now at another, energetically battling with something, trying to oppose something with all its might...

"It certainly isn't very amusing," commented Roy. "What did Jackson produce such dreams for, Henry?"

"I'd put the question differently. Not what

for, but why? What thoughts, what feelings, what state of mind generated those fantastic pictures in his brain?"

"I still want to make sense of it," said Roy.

Henry argued too heatedly. Dreams, even when works of art, did not deserve to be defended so passionately.

"You want to understand what that strange picture means?"

"No, I want to understand why you sent for us."

"I was studying Jackson's biography yesterday and I came across some rather strange things. The fact is that Jackson had a monkey, and he was very fond of it. It was a chimpanzee, called Nellie. Jackson used to call her Ollie. This Nellie, or Ollie, was presented to him by the galactic navigator Michael Born when he was dying."

"Michael Born?" echoed Roy. "Isn't that the person who returned to Earth after the starship *Cepheus* crashed not far from Rigel?"

"The same. But he didn't come back alone."

"From what I know of the history of star-travel, the whole crew of the *Cepheus* was killed. The galactic courier *Orion* was sent to help and found twenty-three bodies on the *Cepheus* and one man half-dead—Michael Born. They nursed him back to health on Earth. Isn't that so?"

"Yes, Roy, but not altogether. Born was left paralysed and dumb. Only Jackson understood him; they had been friends since childhood. No information about the tragic

fate of the crew was ever got out of Born. But that's not the point."

"What is, then?"

"As I just said, Born didn't come back alone. He had the chimpanzee Nellie with him, and she had been a crew-member too. Nellie, like Born, was not killed. But d'you know what the most interesting thing was? Jackson made out one sentence, often repeated by Born, I don't know how he pronounced it: with his lips, hands, or eye movements. The sentence was as follows: 'Ollie saved us all.' Jackson explained that Born called the monkey Ollie, and not Nellie, in which name she was registered on the ship's rolls."

"She saved them all when they were all killed? What a remarkable monkey!.."

"There's a lot about her even more remarkable! Ollie lived on Earth for several years and never ate or drank anything."

"Has that been established?"

"I was at the Jackson Museum yesterday and had a chat with the robot-custodian, who had been Jackson's servant. You know those amusing ancient robots, resembling human beings that tape-recorded every word their master spoke. So I heard all Jackson's instructions concerning Ollie. He never asked for food or drink for her and he never took her to a cafeteria. What is more, he seldom showed her to visitors."

"But was she seen by anyone?" asked Armand.

"Yes, of course. She sometimes got out of

the room and sat on the settee, very meek and quiet. Visitors didn't like her. They felt she was listening in to the conversation... What's on your mind, Roy?"

Roy did not immediately come out of his reverie.

"Interesting! But I still don't see what concrete conlusion can be drawn from your research."

"Nor do I," admitted Henry. "But I feel more and more that we ought to go into this problem further."

"Did you make a close inspection of Jackson's flat, Henry?"

"I didn't inspect it, the museum was already closed. I talked to the robot and promised to look in today. I would like you to come along with me."

Armand shook his head.

"Andrei's expecting me in an hour. Control check of the apparatus before an experiment. You two go."

## 5

The robot was old and rickety: only anticorrosive varnish saved it from rusting; it spoke in the squeaky voice that all ramshackle robots acquire before being sent for overhaul. And if Charlie, which was its name, still existed, it was only because it had belonged to Jackson. It was no longer a servant, it was a museum exhibit. It stood in its usual place in the entrance hall of Jackson's

flat and, although it could move around all six rooms as before, it had not moved from its post for the last seventy years. A plaque on the wall announced that for the first thirty years after its master's death, Charlie without interruption, day and night, had slowly and hopelessly drifted about the flat, staring with a sad red eye at its master's things, listening to the slightest sound and running the old tapes of its master's voice. To people entering the museum, it seemed as if Jackson himself was wandering round the flat and giving orders to Charlie or chatting with friends.

"Old 'un!" said Henry to the rickety robot. "You know more than anyone else on Earth about Jackson. We need to know his life in as much detail as possible."

The little red eye lit up dully on Charlie's forehead. The robot wheezed, and its voice seemed to come from far away.

"If it won't harm the master..."

"Your master died a long time ago," said Henry gently.

"He lives. He is in me. He is with me. He is with us all."

"Yes, in your own and in human memory."

"Listen!" said the robot solemnly. "The living voice of my living master."

From deep inside Charlie came a crackling, the indistinct noise that invariably accompanies the work of an electronic machine when it hasn't been serviced for a long time. Then a resonant young voice came through the interference: "Charlie, Charlie!

Where are you? I'm going to have something to eat, so you mind the voltage doesn't fall! Six thousand three hundred and seventeen volts, that's the setting for today! And don't let anyone in to Ollie!"

"You've just heard the living Jackson!" announced the robot solemnly. "Don't you dare say he's dead."

"Henry, that's shaken me!" muttered Roy. "What a voice!.."

"Repeat that conversation," requested Henry. "And please remember the other orders. My brother has never heard your master's voice."

Although he loved walking about a room and sometimes irritated his slow-moving brother by doing so, Henry hastily sat down on the divan and closed his eyes. In the Jackson Museum, only by falling into temporary immobility was it possible to listen attentively. There were no interior force-fields operating in any of the rooms, everything had been left as in its owner's time—cumbersome, permanent furniture, permanent pictures, real carpets and not force-field carpets. Walking about was uncomfortable and even dangerous. If you momentarily forgot that you were moving through furniture, you could easily bump into a little table, or a cupboard, or a divan and armchairs, trip up on the carpet, become entangled in a curtain or get hooked on a door-knob. The doors in these archaic rooms did not slide into the walls when approached, but were hinged and had to be pulled or pushed by hand.

Roy thought that to live in such a flat would only be possible in full lighting; a man would be helpless in the dark, and the objects cluttering up the rooms were omnipotent and hostile; they could stop being useful and could turn into hidden menaces.

The room into which the robot led them had three enormous windows to admit the daylight and a chandelier fitted with electric light-bulbs hanging from the ceiling. For at least a hundred years, not a single flat had ever had windows or special lighting fixtures, let alone permanent furniture.

The robot creaked from time to time—it was cleaning his vocal contacts—and then the room was filled with Jackson's voice again.

The master of the flat laughed, lost his temper, censured the robot and praised him, sang as he strode about the room, read poetry aloud and talked to himself. Through the interference—the faultiness of the old recording and the tattiness of the tape—they managed to catch a snatch of a conversation with a friend, part of a chat with the TV studio, and, once or twice, a muffled call evidently heard through a wall: "Ollie, Ollie, my dear, it's me, come out!"

And whatever Jackson talked about, however much his cadences changed, whether he was cheerful or sad, tired or frisky, irritated or happy, the master's voice, mechanically reproduced by the servant, created a single picture, one image came over in sound. A young, energetic and zestful man

was walking round the flat; he was witty and good-hearted, he was amazingly kind. It was his main feature, this kindness that permeated his whole being. And what was perhaps most amazing of all, what testified to his goodness, was not what he said, but his voice. The words were born of the situation and corresponded to it; such words could have been spoken by anyone else, but the voice belonged to Jackson alone, it was uniquely individual, it disturbed and it alarmed, it subdued and it beguiled...

When Jackson's voice fell silent, Roy responded to Henry's enthralled look as if to a thought expressed aloud.

"You're right, a remarkable man! What a pity we know so little about him."

"We'll learn more today." Henry turned to the robot. "Your master spent most of his time in the library, didn't he?"

"Yes, he loved the library," said the robot.

"Show us in there," ordered Henry. "And hurry up, we haven't got much time!"

The robot stepped heavily into the last room. After him, propelling him from behind, went Henry. Roy was surprised, but said nothing.

It was not so often that the tactful Henry gave imperious orders and urged someone on so unceremoniously.

The library in this museum of the old life was the most museum-like room of all. It was also filled with stationary furniture—a divan, two armchairs, a chandelier suspend-

ed from the ceiling and curtains over the inevitable windows. Apart from the furniture, there were books, the inevitable appurtenances of old flats—hundreds of books in glass cases: big and small, fat and thin, vividly illustrated or containing nothing but text.

Roy disliked books: they were an imperfect means of communicating information, being slow and inefficient. He cast a weary glance at them and settled himself as best he could in an uncomfortable armchair. Henry, however, walked round the shelves, peering at the spines and taking out several volumes.

In Jackson's library there was one appliance that brought his archaic abode up to date with contemporary living quarters: a stereoscreen had been fitted in between the book-cases. Roy remembered that stereoscreens were only just coming into use in Jackson's time and were still competing with the cinema, but for Jackson, in recognition of his skill as a dream-maker, they had installed the best of the current models. Compared with the present-day ones, this prodigy, that had so impressed Jackson's contemporaries, seemed humble. Roy ran his eye over the screen. Henry too wasn't interested in the grandfather of the present-day screens; he merely paused over the controls and examined one of them, grinning to himself at something.

There was a strange device in one corner of the room. It was a varnished cylinder the

height of a man, with wires and signal instruments. A small barrier screened it off from the room.

Roy nodded at the cylinder with the wires.

"An amusing device! What could it have been for?"

"You mean the high-voltage apparatus? Ollie used it for recharging." Henry spoke with assurance, as if he had been working with it for years. With the same assurance he imperiously demanded confirmation of the robot. "Twice a day, yes? Morning and evening?"

"In the morning," replied the robot. "The master went to eat at that time."

"Naturally. The air became too ionised and there was also the possibility of a discharge... Did you regulate the voltage?"

"Yes. Then Ollie learned how to do it too."

"Did she tell you when to switch the apparatus off?"

"I knew anyway. The master explained it to me."

"And did she talk to you?"

"Very little."

"And did she stay in here most of the time?"

"Yes, in here."

"Did your master come in here to talk to her?"

"Most often in here, sometimes in the drawing-room. I do not understand..."

"It's not important whether you understand or not. I'll ask the questions and you'll answer them. So Ollie loved reading, you say? What books did she read?"

"Books on astronomy and physics, also on biology and..." The robot's solitary eye suddenly went purple with rage.

"You are hostile," he wheezed menacingly. "I did not say that Ollie loved reading, you said it yourselves... You will do Ollie harm. You must go."

Henry laughed and clapped the old robot on the shoulder. Now he spoke in his usual voice.

"Don't be cross, my dear chap. We know Jackson forbade you to talk about Ollie. And we don't want to do her harm, even though she's dead. Believe me, I feel no less respect for her than he did."

"You must go," repeated the robot hoarsely. His voice contacts failed again and this time he did not try to clear them. "You have made me break my master's ban."

Before he had taken three paces towards the door, Henry stopped again. In the narrow space between two book-cases hung a photograph of the owner of the flat with his monkey. Jackson was standing by the window. He was a man of medium height and his appearance matched his voice—a smiling face and merry eyes. Ollie had laid her paw on his shoulder, and it was before her that Henry stopped dead. A monkey would not have reached Jackson's shoulder in height though she was very much like a chimpanzee—long-armed and red-haired, with a broad muzzle, a mouth that reached her ears, blue lips and protruding jaws...

But there was another strange thing about

the monkey's appearance. Anyone who looked closely at the photograph could not help but notice the sorrow in Ollie's face: she stared with penetratingly intelligent, infinitely mournful eyes at anyone who stopped in front of her.

Henry turned to the robot again.

"My friend! My old pal! I don't doubt that Jackson forbade you to record Ollie's voice, but if just one sound she made has been saved, just one sound!.."

The robot's answer came as if through ten doors.

"If you know that my master forbade me to preserve Ollie's voice, then you also ought to know that I daily wiped off the tapes everything that she accidentally recorded on them..."

## 6

Outside, Roy smiled at his brother.

"By fair means or foul, you mean to accustom me to the analysis of dreams. But you must nevertheless agree that Jackson's life is totally irrelevant to the problems I'm worried about."

"On the contrary, it is totally relevant," replied Henry with conviction. "After my second visit to the museum, I'm certain of it. Listen to the proof..."

"If you were going to say that Ollie had nothing to do with the chimpanzee Nellie and wasn't a monkey at all, but a magnif-

icently made electrically powered robot, then you needn't bother."

"Have I really given you cause to think me a fool, Roy? It's obvious that there was nothing in common between Nellie and Ollie."

"What did you want to tell me, then?"

"You would have found out about that two minutes ago if you hadn't interrupted. Do you remember on what spool the dream 'Monkeys in Space' was recorded?"

"Yes. The fourteenth."

"And what makes it different from the others?"

"It's the last. As Artemyev put it, it winds up the complete collection of Jackson's dreams."

"That's just where you're wrong. The fourteenth spool is an addendum to the collection, not simply the last. It's a collection of all the early pieces that he didn't want to include in his editions because he thought them artistically weak."

"You mean that 'Monkeys in Space' is one of Jackson's early works?"

"I mean that it was his first to be broadcast. It was with 'Monkeys in Space' that this strange art form began."

Roy was so astonished that he actually stopped dead in his tracks.

"Henry, you can't imagine how important this is!"

"Maybe I can." Henry tugged at his brother's arm. "I can't bear it when you stand stock-still like that."

"Where are we going?"
"Can't you guess?"
"To the Space Museum?"
"Where else?"

## 7

The vast halls of the Space Museum were always full of visitors. The *Cepheus* Expedition stand featured coloured photographs of the space-ship's crew. One of them was a shot of Nellie with Sergeyev, the commander, and Born, the navigator.

The full-grown chimpanzee had laid her hands on the shoulders of the astronauts and her ugly face was level with the heads of the men.

"You know what surprises me?" said Roy. "That they should have confused that stupid mug with Ollie's refined and intelligent features. I know that to human beings, all monkeys look the same; but it didn't take exceptional powers of observation to spot that the young chimpanzee with the expedition didn't grow up, she became smaller, as you must agree."

"Perhaps someone did notice the incongruity; or perhaps detected a new law of nature: conditions in space, and especially those that occurred in the *Cepheus* disaster, make animals shrink."

In all museums, a crowd of the curious quickly collects round a man who spends a long time in front of a particular exhibit.

Roy and Henry had not gone a third of the way round the *Cepheus* stand when they began to be hampered by jostling visitors. "Say, what are they showing here?" "Is it something new?" "Nothing interesting, just an old crash. Fancy people crowding round that!"

"Let's go," said Henry.

Roy showed his institute card to the man on duty in the hall. The brothers were recognised in the museum without documents in any case: their own photographs hung in one of the rooms amid the portraits of space explorers. The man on duty advised them to see the film about the *Cepheus* in the cinema hall and to listen to the summing-up of the experts who investigated the tragedy.

The shots familiar to them from school lessons flashed up on the stereoscreen: the first starships with space annihilators that made it possible to develop faster-than-light speeds, portraits of the great space conquerors, lift-offs, moorings to unknown heavenly bodies, more lift-offs, triumphant returns...

The *Cepheus* was not unique in the family of faster-than-light ships; she was an ordinary galactic liner. Nor did the mission given to the crew seem out of the ordinary. They were to steer clear of the established space routes and have a look at unexplored parts of galactic space. There was nothing unusual about that. Dozens of ships had ploughed through interstellar space, everywhere they went it was the same as near

their native, well-studied Sun. The only difficulty was that the further they went from the Sun, the bigger the quantity of active substances they had to take on board for the engines.

After half a century, the naive hopes and ecstatic intoxication of the first successes had gone for good. Space was not only vast, it was hazardous; unforeseen dangers lurked in every unexplored region. The *Cepheus* tragedy was one of the events that had brought man to a sober understanding of his opportunities and of the enormous hazards. As they went up into their ship, the astronauts cheerfully said goodbye to Earth. But Nellie the monkey whined, darted about among the men and clung to the handrail of the gangway—an amusing fusspot, a being the size of a man with the mind of a one-year-old child.

During all four years of the flight to Rigel, the instruments recording daily life in the compartments portrayed the same scenes over and over again. The first shock came when all the ship's automatic gear suddenly and simultaneously packed up: the navigating and domestic instruments and the annihilators. Everything to do with electricity went completely dead.

No longer the mighty ship that had freely been changing the structure of space and thus creating faster-than-light speeds for itself, it was now an inert box speeding through the dark void. Recordings in the ship's log testified to panic among the crew.

As a last resort, Sergeyev the commander and Born the navigator tried writing messages on paper to convey to mankind the news of their plight. But the ink evaporated from the page, an unknown force wiped out for tomorrow what had been written that day, and only from the impressions on the paper was it possible to discern what the commander and the navigator had been trying to tell the world.

Ship's log entries appeared on the screen, the solemn voice of the commentator read fragments of sentences: "A diabolical force-field, all the automatic gear... Probably electric... Only through the telescope... Two small planets called Scylla and ... being carried to Charybdis... Every molecule of the body permeated with... It's hard to operate the hatch manually... So amazingly alike!.. Poor Nellie... Meanwhile we..."

"Next come pages undoubtedly filled up, but it's not even possible to decipher the impressions," ran the commentary on the pages of the log that appeared on the screen. "And only on the return journey, when the starship had evidently steered round the dangerous planet called Charybdis, did the entries reappear, again testifying to confusion and desperation."

Single deciphered letters lit up and faded on the screen while the commentator read out the most likely interpretation: "...to stand it for two weeks when every minute is frightful... Born objects, he believed... Convinced that the annihilation will not

escalate... Why believe?.. The annihilators can now be... I ask why ... the general opinion is yes!.. Born ... once saved, again ... I very sharply... Ran away with the monkey ... last entry—we're switching on..."

"That really is the last entry," reported the commentator. "Now see how the galactic courier *Orion* discovered the *Cepheus.*"

A dead ship with lifeless annihilators and its navigation lights out came flying towards the viewers. It did not respond to questions and did not change speed. A reconnaissance spaceship sped towards it from the *Orion*, the rescuers opened the emergency hatch and warily went inside. And what they saw on board the *Cepheus* was shown in appalling pictures on the screen. Sergeyev and the senior engineer were lying lifeless in the cabin, their hands clutching the controls—the commander and his assistant, both of them dying, had convulsively been switching off the newly started annihilators. The crew, except Born, were still at their stations and were all dead. Born was spreadeagled on the floor in the lounge, and the monkey was lying on top of him with her arms round him. Both were alive, but unconscious.

The doctor from the *Orion* suggested that the crew had been killed by an electric shock to the nerve cells, and his diagnosis was confirmed on Earth. The experts unanimously agreed that between the mysterious planets of Scylla and Charybdis the *Cepheus* had run into a gigantic electric field that had blocked the ship's machinery. Describing a trajectory

round Charybdis, the starship had been carried out into open space. The crew, in agony because of the electric field, had ordered the annihilators switched on at the first opportunity in order to get out of the field as soon as possible. Only Born had objected to the premature switching on of the engines. It was possible that at the moment the annihilators had been turned on there had been a gigantic concentration of the electric potentials inside the ship.

The experts' conclusion was as follows: until the interaction between space and the electric fields had been fully explained, no more starships should be sent into dangerous regions.

"Just the conclusion that Ollie apparently wanted," said Henry. The screen went dark. "Let's go outside, Roy."

"D'you want to go back to the institute?"

"I'd rather take a stroll round the park. I don't know how you're feeling, but I'm not up to work today."

"I'm not a machine either, I have nerves too," replied Roy glumly.

## 8

It was always possible to find a deserted little avenue in the Capital's park. The elegantly arrayed maples were gradually shedding their leaves, although it was about twenty-one days until Fall Week. Henry caught a mulberry-red leaf in mid-air and crushed it

in his fist. It was a long time since Roy had seen his brother so sad.

"It's an appalling picture—the navigator paralysed and Nellie the monkey saving him so devotedly..." said Henry.

"Ollie, Henry. Nellie died long before that and her corpse is probably rolling somewhere round that evil Charybdis to this very day."

"Yes, Ollie. Did I call her Nellie? Here I am, trying to link up my thoughts into a logical chain, but when I remember that picture, the chain snaps. I begin to regret that I didn't live a hundred years ago and that I wasn't aboard the *Cepheus*. Born and I would have talked the crew out of that senseless decision to switch on the space annihilators before we were clear of the electric fields."

"You overestimate your own powers of persuasion, Henry. You'd have had to deal with men maddened with suffering. And you would have been half-dead with agony too. Such a state is hardly conducive to the construction of logical chains."

"Born himself probably wasn't fully aware of the danger. What d'you think, did Ollie have a command of human speech then? Could she talk to him the way she talked to Jackson afterwards?"

"Hardly. But she'd probably picked up some way of communicating information to the crew, otherwise they wouldn't have got so far away from Charybdis that it became possible to switch on the annihilators. In

Jackson's words, the navigator reported that Ollie had saved them all. The subsequent tragedy was evidently erased from his memory, but he remembered the beginning—how Ollie led the ship out of the electric fields."

"We know that because of the entry: 'Born ... once saved, again...' Born seemed to be saying that once saved, they were intending to dice with death again."

"That's not the most obscure part of the tragedy."

"What is, in your view, Roy?"

"It'll be better if I say what's clear, so as to separate the facts from the theories. The first hard fact is that the *Cepheus* ran into an electric field generated by Charybdis or Scylla. Charybdis is inhabited by a civilisation of rational beings similar to our monkeys. They differ from us in that, to put it figuratively, they feed on electricity. The weird existence of Ollie with Jackson is indisputable proof of that. Correct?"

"I would add that the Charybdians are not biological beings, but of some other nature."

"That is also acceptable as a working hypothesis. One important conclusion is indisputable: direct communication between human beings and Charybdians is out of the question. What is good for man is fatal to a Charybdian. Contact between these two civilisations is difficult, though possible: Ollie lived among human beings for a while. Incidentally, the Charybdians understood the dangers of direct contact far more clearly than the human beings. In Jackson's dreams,

a Charybdian, evidently an operator on a space station, tears his hair in desperation when a shipful of human beings approaches. I also believe it's a fact that these electric monkeys had a high moral culture. The Charybdians tried to save the human beings at the cost of their own citizen's life. They could have eliminated the uninvited guests by stepping up the field intensity, but instead of this, at a threat to their own existence, they reduced the electric potentials that were fatal for human beings."

"There's no proof that they reduced their fields, Roy."

"But there is proof that they sent a Charybdian to the starship, namely Ollie. The entry 'It's hard to operate the hatch manually' tells us that the astronauts let Ollie into the *Cepheus* and she tried to get the uncontrolled ship out of the danger zone. If the crew had not been exhausted by their torments, she would have succeeded and a bright new page would have been written in the history of humankind—the establishment of contact with a civilisation of developed and noble beings."

"And how d'you explain that Ollie was found stretched out on Born's body?"

"I think she knew there would be a surge of the high-voltage field when the annihilators were switched on and she tried to shield the navigator with her own body. After that, everything's straightforward. They saw the dead crewmen, the paralysed navigator and the monkey; they remembered

that there had been a chimpanzee aboard the starship, and without thinking any further they mistook the Charybdian for the animal. But Ollie herself didn't want to disclose her true nature and so, unrecognised by humankind, she endured the rest of her short life on Earth. Have you any objections to that reconstruction of events?"

"Let's sit down for a moment," said Henry.

A mild wind was swaying the branches and the trees were rustling. Henry absent-mindedly admired the bright leaves falling to the ground. He spoke again after a short silence.

"I think that Ollie herself might object to your reconstruction. What is the meaning of 'unrecognised by humankind'? Jackson knew that she wasn't a monkey. I think the solution to the riddle of Ollie's subsequent life with Jackson is much more dramatic. It is a sad story, Roy. I can't say that the people of that era behaved in the best possible way."

"Does that mean we have come to an accusation against all mankind? What shall we call the court case: 'Charybdis v. Earth'?"

"Jokes are out of place, Roy. I don't want to accuse. I want to make sense of events that date back a hundred years. And I don't agree that Ollie was sent merely to rescue a starship that had got into difficulties. She was a plenipotentiary ambassador, not an emergency repair technician. She was to set up relations with the human beings

who had so senselessly invaded their electrical kingdom. That was why she didn't leave the ship when it began moving away from Charybdis."

"Then why didn't she disclose her real identity on Earth?"

"There were many reasons. Even back on the starship, Ollie discovered that human beings are physically different from the Charybdians. She needed not only to enter into contact, but first to work out a system of safety measures so that communication should not prove fatal to both sides. But the crew had no time for contacts, they were frantic for one thing only—to get out alive! And our intelligent electrical monkey sadly realised that her new acquaintances, with Born as the only exception, were guided by the passions of the soul and not by the logic of reason."

"And on Earth, Henry? Humanity on the whole, after all, wasn't perishing and wasn't panicking like the starship crew."

"She probably wanted to study human beings first and then, and only then, would she disclose herself. She knew, of course, that the electrical storms had erased all the log entries and the dictaphones were not working—it wouldn't have been easy to guess who she was. Nor do I doubt that she declared herself to Jackson straightaway and that all her subsequent behaviour was the fruit of mutual agreement."

"Is that so, Henry?"

"Remember Jackson's voice, his face,

remember everything we know about him. He was a charming man, kind, easily caught up in and racked by fantasies... I have no doubt that he sympathised passionately with Ollie in her plight and did everything possible to ease her lot on Earth. And he gave in to her when she insisted that he shouldn't disclose to anyone what kind of creature was living with him."

"But why, Henry, why?"

"D'you remember the books Ollie was reading? She was herself going to study the possibilities of safe communication between human beings and the Charybdians. It was clear to her that humans could not live on Charybdis. She was herself in poor health on Earth. And what would have happened if mankind had found out at that time about a civilisation on Charybdis? One space discovery followed another in those days. Man was making himself at home in the Universe. New expeditions to Charybdis would have been fitted out immediately. They would have been badly prepared, for there was no way of preparing them better in those times, and so they would have become a source of disasters for us and for the Charybdians. As she studied human beings and human science, Ollie realised that the time had not yet come for close communication between the races and so she condemned herself to voluntary seclusion. If I hadn't spoken so severely to the old robot today, we wouldn't have found out that Ollie could express herself in human terms, that she read books

and admired TV shows, and that to Jackson's guests the amusing monkey seemed to be listening to their conversation..."

"And Jackson's televised dream was the only information she permitted to be given to humankind?"

"Perfectly correct. When he decided it was too early to inform humankind about the state of affairs on Charybdis, Jackson resourcefully found an unprecedented means of communication. Or perhaps it was suggested to him by Ollie. Dreams possibly rate as public information on Charybdis, but on Earth, the orientation was on posterity. Jackson's strange visions could only be appreciated in future ages. It was precisely for that purpose that he used the newly invented recording of dreams. Jackson may never even have suspected that with this broadcast he was laying the foundations of a new branch of art—creative dream-making. He might not even have seen that dream, they could all have been Ollie's stories passed off as creative delirium. He became a dream-maker after the triumph of his first TV show."

"It was probably a dream all the same," said Roy. "A remarkable characteristic of Jackson's was the fact that his brain uninterruptedly gave birth to strikingly vivid dreams. He was so caught up in the events on Charybdis that he thought about them awake and dreaming. But why didn't he include this dream in his collections afterwards?"

"Because Ollie was interested in TV shows. I saw her fingernail marks on the TV controls. She naturally watched TV transmissions far more closely than anyone on Earth."

"There's logic in that: in view of the unexpected success of the dream there was a danger that the secret might be prematurely disclosed, so she asked Jackson not to relay that picture again. And to distract attention from the first broadcast, he agreed to publish his dreams in future and willy-nilly created a new art form."

"Yes, that's probably it."

The brothers fell silent. The wind was rising, the limes and maples rustled more loudly. The sky darkened and the lights came on in the depths of the foliage. Henry loved, more than any other season of the year, the dry, cold autumn and an evening like this, in the avenues, illuminated by the ghostly glimmering of the trees.

Roy steered his brother back to the subject of the conversation.

"We haven't clarified everything, Henry. I would even say that everything's even more obscure. True, we've learned a lot of new details about Jackson, about the art he created and about Ollie the monkey. By an analysis of half-forgotten facts, we've proved that a rational civilisation exists in the nearer regions of the Galaxy and it will be possible to resume contact with it, only without incurring the risk of mutual danger."

"Isn't that important, in your view?"

"Yes, it is. Except that these facts are

incidental discoveries. But what you undertook the search for hasn't been clarified yet."

"You mean Artemyev's dream?"

"Yes. Jackson's information, as we now realise, was very important; it was a kind of enciphered interstellar diplomatic note. It was revived a hundred years later in someone else's confused mind..."

"But didn't you suggest the answer to that question earlier?" Henry yawned. He tired quickly after his illness. "Arthur's lying. He knows about Jackson."

"I reject such a simplistic hypothesis now. There is such important information in the dream that any superficiality is dangerous. There are special reasons why humankind has been reminded of an event that took place so long ago."

"If Ollie was alive... What if she didn't die, Roy?"

"We can check. Her grave is probably known. But I would investigate Artemyev."

"Why?"

"To get a full picture of his cerebral activity, the structure of the radiation, the subconscious area..."

"We can ask him, of course. If he's seriously interested, he'll give his consent to any form of investigation... What's happened, Roy?"

"A thought-gram from Armand!" Roy pulled the transmitter out of his pocket.

"What is it?" Henry jumped to his feet in alarm.

"Something terrible's happened to Andrei. We're to fly over at once."

## Chapter Four

A REMOTE GLOBULAR CLUSTER...

### 1

Andrei's lab occupied a block at the Institute of Space Physics. Here were housed the command machines, the operations rooms and the central console. The enciphering machines were set aside in a separate building, nine-tenths of it below ground level. When Roy and Henry ran to the console room where Andrei had set up his working office, a group of lab workers were standing by it, among them the director of the institute and Armand.

"Andrei's alive, but in a bad way. They're going to bring him out in a moment," said Armand. He had not yet recovered from the shock and his dark face was ashen grey.

No one knew exactly what had happened. Armand had been in the operations room when there had been a bang in the console room. It had not been a powerful explosion and was drowned by Andrei's exclamation of "Oh, horrors!" The staff rushed into the console room. Andrei was lying unconscious on the floor. The doctors were called and they ordered everyone out of the room.

Boyachek, President of the Academy of Sciences, arrived on the scene and took Roy aside.

"One mishap after another," he said, very disturbed. "We've hit an unlucky patch. Hasn't the Mars crash been explained yet?"

Roy looked glumly at the dejected president; he was having a rough time of it. Clear results were demanded of him, and he was placing all his hopes on an investigation which had come to an impasse.

"Isn't there some connection between these events?" continued Boyachek. "I'm not a physicist, but it seems to me that one incident corresponds to another in some way."

"There may be a tie-up," replied Roy cautiously, "but we haven't hit on it yet. True, we've found some interesting facts about unknown civilisations in space and I will be giving you the details later."

A trolley, with Andrei lying on it, rolled out of the console room. The president stopped the doctor who was following on behind.

"Severe nervous shock is the preliminary diagnosis," replied the doctor.

"Will he live?"

"We're successfully keeping him alive for the time being, and that's a good sign."

The trolley glided on. Boyachek asked the director if it was possible to go into the console room or whether they should wait until the photographs had been taken. The director replied that there were observation telecameras in all rooms. Korytin, it was true, used to switch his off, explaining that he

couldn't concentrate when he was being watched. But now every detail had been recorded on tape many times over. The president was the first to go in.

"I don't see any damage," he said, looking round.

The console room had been given its name because of the instrument panels duplicating the command apparatus in the operations rooms. Unlike Roy's lab with its many machines, Andrei had nothing in his but a table, a stereo monitor above it with recording instruments on the panels, and, standing in the middle of the room, a rectangular device with a telescopic eyepiece and a revolving armchair.

"Korytin didn't use the screen much, he preferred the optical finder." The director indicated the apparatus with the telescopic eyepiece. "The accident happened while he was deciphering signals from the Centaurus-3 cluster."

"Is everyone here?" Boyachek ran his eyes round the lab staff who had just come in. "Let's try to reconstruct the accident."

"What about listening to the recording," suggested the director.

Though the panel survey was switched off, sound was maintained. Korytin's voice could be heard giving instructions.

Henry sat down near the panel with Roy and Armand standing beside him. An image of the operations room appeared on the screen, with the staff working at their panels. From time to time, the voice of the invisible Andrei

demanded that the signals should be stepped down or up. At four thirty-two, when the steady light-emission picked up from Centaurus-3 was being intensively processed, there was suddenly an excited shout from Andrei: "At last!" Then, a minute later: "That's the stuff!" to be followed by another exclamation almost immediately afterwards, but with a note of exasperation this time: "No, we didn't make it in time!" After three minutes of silence, a shout of "Oh, horrors! Help!" The wail was full of despair and as incoherent as if Andrei's mouth had been gagged.

Henry half rose and sat down again. Everything in him cried out for him to run in answer to that brief, sobbing call for help. Roy silently rested his hand on his brother's shoulder.

"And that's all," said the director glumly. "The first deciphered signal proved fatal. Fortunately for the others, Korytin was deciphering on his own. He recently submitted a report to me that until he was convinced that reception was safe, he wasn't going to allow anyone into the console room."

"Has the recording of the signal that caused the accident when it was deciphered, survived?" asked Boyachek.

"Yes, of course."

"Can we try and decipher it again?"

"Yes, of course."

"In the same sequence and at the same rate?"

"In the same sequence and at the same

rate. And probably with the same results..."

The president became thoughtful.

"However, we must repeat decipherment. Everything suggests that the signals are being generated by a highly developed civilisation. It may be hostile to everything living and, like the jinn of fairy-stories, reward with death anyone who tries to get to know it. But even in that case we must find out the nature of the danger threatening humankind."

He looked at Roy, who frowned.

"You wish to give this job to our lab? Won't that mean overloading us?"

"Who else can do such research?" asked the president. "You happen to have been specialising in the unpredictable aspects of space; other labs are working on set projects."

Roy did not hesitate for long.

"Very well, we'll take it on. Andrei's a friend of ours and any misfortune of his affects us personally. I agree there's some kind of common basis to the recent disasters."

Soon afterwards, Roy requested permission to go. Armand went with him.

"I can't concentrate in front of other people," complained Roy to Armand. "I sometimes envy Henry: he's capable of thinking in any situation; he only needs to be carried away. And he thinks easily and intensively, but I'm slow-witted."

Armand was curious about what had been discovered in the Jackson Museum.

"We must check the monkey's remains,"

he said after he had heard Roy out. "We can do this with the aid of gamma-rays, without opening the grave. I think that we'll be able to convince Artemyev to agree to being examined. If you've no objections, I'll undertake that myself."

## 2

Neither clear thoughts nor delirium scenes arose in Andrei's mind. Sometimes his brain woke up and the weak, throbbing emission testified that the cells were alive; sometimes it lapsed into coma again. Life at its lowest energy level was how the electronic doctor described the condition.

"The lad's almost completely burned out," replied the chief doctor of the university clinic, Kon Araki, to questions about the victim.

If at first Roy had had any hope that Andrei would come round and help in disentangling the problem of the latest incident, he soon gave up the idea. He made this sombre announcement to Henry and Armand when they appeared after his latest talk with the doctors.

"However, there's news about the monkey!" said Armand. "And not only about her, friend Roy, but about Spenser and Harrison, and about Artemyev!"

"Start with the monkey," said Roy. "What state is the corpse in? Decayed? After all, it's a hundred years since she died."

"There is no monkey. There are no remains in her coffin."

Roy looked at Henry in bewilderment. His smiling brother was silent. He had the habit during a general conversation of listening attentively to everyone, of smiling at his own thoughts and, if he did enter into the conversation, then only when asked questions which he couldn't refuse to answer.

"Does this mean that Jackson buried an empty coffin?"

"There was a body, but it evaporated in the course of a hundred years."

"It rotted, as they used to say, Armand. A crude way of putting it, but precise. I see no reason to reject it."

"There are reasons for doing so. Not decay, but evaporation or sublimation. There was a deposit as solid as varnish on the inside of the coffin, and that's all we have left of Ollie. But that's only part of the news, Roy, and not the most important. A chemical analysis of the deposit showed that Ollie's chemical structure was not carbon-hydrogen-oxygen, like that of us terrestrials, but cobalt-strontium-helium."

"Well, we'd already guessed that Ollie was an extraterrestrial visitor," said Roy. "But what about Spenser and Harrison?"

It was obvious that Armand was about to deliver his most important piece of news.

"D'you remember the strange phenomenon that Winkler noticed on Mars?"

"Spenser's body dried up quickly there.

Is it possible that in a conserving atmosphere..."

"Yes, Roy, exactly the same phenomenon as with Ollie. Spenser's body was evaporating and evaporation was settling on the inside of his sarcophagus. And if Araki hadn't taken more active measures for preservation, Spenser would soon have been reduced to a doll."

"And Harrison?" asked Roy worriedly. "You know how important it is for us to keep Harrison at least in a state of full preservation!"

Armand was able to reassure Roy. Harrison's body had not been sublimated and the shrinkage of Spenser had also been arrested. Incidentally, shrinkage, or mummification, as Araki had called it, was an inexact term: it only applied to the beginning of the process, when the water was evaporating from the body cells.

"Ninety per cent of the body is water," objected Roy. "It's enough for its loss to change irretrievably the outward..."

Armand nodded his confirmation. Ollie's example showed that the process didn't end with evaporation. There was no doubt that without powerful preservatives, Spenser and, probably, Harrison too would be totally sublimated, that is, would become a deposit as solid as varnish evenly lining their coffins.

"Wait, Roy!" exclaimed Armand at Roy's gesture of protest. "I know everything you're going to tell me. Ollie isn't a human being and it's possible with her, but Spenser and Harri-

son are human beings, and the solid parts of the human body disintegrate into dust, but they don't evaporate. So listen to the most staggering thing of all. The cell structure of Spenser and Harrison is different from the human in many respects!"

Armand solemnly announced that he had not confined himself to establishing the sublimation of Spenser and Harrison, he had carried out a chemical analysis. He had not got as far as detailed research on the cells, since such work cannot be done in a hurry, but he had gained a general impression of the chemical composition of the two bodies. The result was that they were substantially different from that of the cobalt-strontium Ollie, but did not coincide with the human either. The main difference was that Spenser's body contained roughly three times more helium, four times more strontium and up to eight times more cobalt and phosphorus than that of any normal human being. Similar differences, though quantitatively less, had been found in Harrison.

Roy had been looking intently at Armand as he announced his findings.

"Is that all? I'm waiting for your most sensational announcement. Could it be that Artemyev too..."

"He's human, he's human!" Armand roared with laughter. The thought that the dream-maker might not be of terrestrial structure seemed to amuse him. "Incidentally, he willingly agreed to be examined. But there's something new here too: the wave pattern

of 'Gorillas at the Space Console' was sharply different from Artemyev's own but in all the wavelengths and overtones..."

"I've got there," interrupted Roy. "It coincided with the characteristic of Henry's delirium and the emissions generated by Harrison's brain?"

"Perfectly correct!" exclaimed Armand delightedly. "The situation's becoming clear at last! Why aren't you pleased, Roy?"

Roy pushed a button. The thick outer wall became permeable to light and sound. Roy went up to the wall, which had now become a gigantic window.

From the twenty-fourth floor there was a fine view of the northern sector of the Big Boulevard Ring: multicoloured hundred-storey buildings, bridges over the streets and squares, landing pads for aircabs on the roofs and terraces. The bridges, put up at a dizzy height, had long served for strolls and were preferred to the deserted avenues of the parks and the boulevards as they gave a magnificent view of the enormous city. Wherever Roy turned his eyes, there were aircabs darting through the air, hundreds, thousands of them, multicoloured, vivid, swift and noiseless. Automatic traffic controllers monitored their flights. People in the Capital were used to living in three dimensions; they preferred high altitudes to the surface and only landed so as to soar skywards again immediately afterwards. But amongst them, in the midst of those fifteen million cheerful, energetic and industrious inhabitants of the Capital,

strange pseudo-humans had been wandering about. Why had they appeared? What were they after?

Even up there, on the twenty-fourth floor, eighty metres above ground-level, they could hear the voices of the birds and the rustling of the trees on the boulevard over which the institute building towered. The day before, the meteorologists had announced the autumn season in the Capital and had activated moderate winds. A week later, on the first day of Fall Week, the autumn gales would start, the decaying leaves would whirl wildly over the earth, storms would be unleashed at sea, and millions of people would go up over the forests and sea to breathe in the fresher air, admire the treetops as they shed their brilliant raiment and enjoy the view of the white surf. The usual autumn picture, just as it was announced in detail in the meteographics, as it had been happening for nearly forty years and would be happening this year too.

After the picturesque fall of the leaves, the rains would lash down and the planned damp would set in. There had been many requests to moderate the celestial floodgates, not to mention a request to make Spring eternal—but humankind didn't want to change the traditions; if it was autumn, that meant cold and slush, and many even liked such weather. Everything this year would be as in previous years; life on Earth was planned down to the last detail. Surprises were expected only on the planets to where the main

activity of humankind had been transferred.

But now the unpredictable had appeared on Earth: pseudo-humans among human beings!

But why was it such a surprise? After all, it had long been expected. Even in ancient literature there were descriptions of meetings with extraterrestrials. It was a favourite theme—invasion of Earth from the stars, the appearance among human beings of scouts from other civilisations. In reality it was working out differently: only in the last century had man's cosmonauts discovered rational societies in the nearest regions of the Galaxy, but they had all been made up of creatures a long way behind human beings in terms of development. True, Andrei was trying to prove that a civilisation had been found immeasurably more powerful than our own, but a civilisation hopelessly far away, certainly no stellar next-door neighbour...

"What are you so shaken about? We know from Ollie that we were being visited by aliens from outer space."

Roy went back to his place and switched off the transparent wall.

"We brought her to Earth," he objected glumly. "We didn't bring Spenser and Harrison. The pseudo-humans appeared of† their own accord. It would be unreasonable to see their coming as purely haphazard. There must be some purpose behind their stay on Earth."

"And your opinion, Roy?"

"An ominous one!" replied Roy firmly. "Spenser's presence led to a starship disaster. Harrison infiltrated into Andrei's lab, and Andrei was nearly killed."

"Harrison took his own life, however," commented Armand. He obviously didn't share Roy's views. "And before he died, he instilled into Henry's sick mind mathematical truths of great importance for humankind."

"I don't know why he committed suicide. As for the truths—you yourself said into his 'sick mind'. Why not into a healthy one? Why didn't he publish his own discoveries? Your example proves, Armand, that good was being accomplished in the form of an illness, that it bears in itself abnormality. And that means that in normal existence both Spenser and Harrison are harbingers of evil, as distinct from Ollie, of whom I cannot say the same."

"D'you consider that Ollie and they are envoys of the same civilisation?"

"I won't venture to confirm or deny that. Armand, we have a special assignment for you. Henry and I are going to ascertain what kind of despatches are being sent by that mysterious civilisation on Centaurus, and you will search for more pseudo-humans. Carry on checking brain emissions. And be specially on the alert for those whose characteristics..."

"...coincide with Henry's visions and Artemyev's dreams, is that it? It shall be done!" When given precise orders, Armand loved to speak precisely himself.

## 3

The director put a photograph on the table.

"The deciphered images will be projected on to the screen. Here is a shot of Centaurus-3."

It was the usual globular cluster, of which there are over a hundred on the fringes of the Galaxy: diameter about forty parsecs, but over a hundred and fifty brilliant stars had been counted in that comparatively small space.

"All the institute's technology is working for you," repeated the director. "All your demands will be met forthwith."

He went out and Roy took his place at the console. The console was flush with the monocular apparatus which Andrei had been using—it was at present draped with a dust-cover. Roy turned to Henry.

"Shall we start?"

"Show me the deciphering machine," requested Henry.

Roy flashed up a picture of it. An intricate metal grille separated the videoscreen from the operators, and a protective field was pulsing between the rods. In the event of danger, the protective field would be amplified and would become impenetrable. The grille was an innovation. Andrei had been working without one.

A squat dome appeared on the screen, someone's invisible hand opened it, the machines in the cellar gleamed. There were many

of them, big and small, looking like vats and long pipes—a gigantic generating station covering an area of thirty hectares. Some of the photons detected during the almost instantaneous photographing of the globular cluster of Centaurus-3 were to travel round the innards of all these machines to be classified and subjected to the action of gravitational, rotational and many known and perhaps also unknown accompanying fields.

Henry was thinking how Andrei had gone through thousands of variations of such fields in the deciphering machine, trying to detect the faster-than-light agent that he had predicted. Andrei had spent several years before the console at which Roy was now sitting; he had probably checked millions of combinations until one had finally worked. Which one had worked? In what way had the baffling faster-than-light carrier interacted with the fields in the deciphering machine? What phenomena had resulted from the process? How important and how dangerous were they?

"Could you break away from your thoughts, perhaps?" asked Roy.

"Start up," said Henry.

The globular cluster of Centaurus-3 was bigger and brighter on the screen than in the photograph, but separate stars, as before, were lost in the glittering mass. Then the cluster began to move, swelled, broke up into thousands of stars, then suddenly went out. The darkness that blanketed the screen was replaced in a fraction of a second by a night

landscape, a starry sky so beautiful that Henry shouted with delight and even Roy said something admiringly under his breath. The brothers had never seen anything so magnificent either on Earth or in their wanderings through outer space near the Sun.

The sky was ablaze with tens of thousands of glittering points, and among them shone white, greenish, red, and mauve stars the size of walnuts. Henry counted forty-three stars as big as the Moon, and fourteen of them formed a weird, multicoloured constellation.

"We should have a look at that, Roy!" whispered Henry in a trembling voice.

"That's what you're doing," rejoined Roy, "and you're looking from within. The transmission is evidently coming from one of the inner stars."

The picture of the cluster changed again; the stars were growing fainter and disappearing. Only one continued shining, an ordinary little star no bigger than a pea; it was lost next to the others, although it was brighter than Sirius in the terrestrial sky. Its radiance soon began to fluctuate; the star now contracted, now expanded, now flared up vividly, now almost went out. A ciphergram appeared on the screen: shining peaks were interrupted by troughs, again the peaks soured up—their alternation shaped itself into the phrase: two-two-four; two-two-four... Then the screen went blank.

"Let's stop for a moment," requested Henry. "The formula twice two is four certainly looks like a call sign. Doesn't it seem

to you that the transmitting station is that star with the fluctuating brightness?"

"I thought of that too. And while you were admiring the star, I asked for its pulsations to be decoded. The machines found no rational information in the variations of brilliance."

"I'm not saying that the transmission of information is accomplished by fluctuations in the brightness of the star—that would contradict Andrei's theory of the faster-than-light agent of TV communications; but aren't the changes in brightness a side-effect of the transmission? Otherwise why are we shown the star alternating between a calm and an excited state?"

"That makes sense. But it must be a mighty powerful civilisation if it can transform a star into a signal lamp!"

Several minutes passed in darkness, then another picture shone on the screen.

It was undoubtedly an artificial structure, but as big as a planet. At first it was shown in diagram form: in the centre was the same pulsating star, with seven planets orbiting round it: six round bodies and one disc-shaped, six natural and one artificial.

"They're showing us the scale," said Roy.

The artificial planet grew until it filled the whole screen. It now looked like a gigantic human building with superstructures, wings and covered passages leading from block to block. Roy noticed that if living creatures inhabited it, each must be up to five kilometres tall.

As it turned out, the denizens of this planet-house were long, not tall. Something streamed out of one of the towers and began snaking in and out among the superstructures and wings: it was like a river winding in and out among the artificial structures. When the creature had fully emerged, it was seen to begin with a brightly glittering head and end in a twinkling tail. The spikes of a crown rose up over its head and the lightning flashes darting from them dully illuminated the dark surface of the planet-house. There were spikes on the tail too, but there were fewer of them and they were not giving off flashes. Roy said that the crown was an energy device and the tail was a transceiver.

The river-like creature flowed towards a squat building with a globe on its roof, and streamed up the wall. The flashes were darting from the mane more rapidly now and they were more brilliant. Then the creature began to insinuate itself into the globe: first the crowned head disappeared, then the body and tail were drawn in after it. Soon there was one globe standing on the roof again, and it was clearly metallic, so brilliantly did it reflect the light.

The globe shot up into space shortly afterwards. As it receded from the strange planet, the view and scale changed accordingly. The other planets reappeared and the globe travelled round each in turn. Roy whispered delightedly that the control of space apparatus in that world was perfect. Then

the globe touched down on the planet nearest to the central luminary. This was now clearly identifiable as a Class B star, bluish white like Vega, except that it was just beginning its evolution as a star.

The globe touched down on the surface of the new planet; and there were other globes beside it, about fifty of them on the visible side, but obviously there were more on the invisible side.

The planet was reminiscent of Mars with its yellow, stony desert. But there was one difference: there were towers like gigantic horns placed systematically all over the surface.

The river-like creature began streaming out of the globe—the crowned head, the sinuous body, the tail with its antenna spikes. Before the weird creature had fully emerged, its head plunged into a kind of orifice on the surface of the planet and the body began slithering down after it. Roy began a long joke about the Centaurians being rivers on their native planet and lakes in their place-globes, but on their landing station they turned into waterfalls. He didn't get the chance to finish. All the towers began pulsating. They expanded, turned into something like barrels, stretched upwards and expanded again. And as if under the influence of their pulsations, the star began to heat up. Even before this, it had been of enormous brightness, a thousand times brighter than the Sun, but now its brilliance had increased millions of times. Roy stepped up the protective field, so intolerably bright was the deadly

blue fire that had blazed up on the screen.

Suddenly the whole picture changed dramatically. The star and the planets vanished. Instead, the black peaks began dancing on the screen again, shaping themselves into the previous formula—two times two makes four. Henry whispered nervously that the real transmission was beginning at this point, the preceding spectacle had merely been a visiting card, a despatch from distant correspondents to announce that a highly developed civilisation existed in the depths of one of the star clusters and that it looked like this and behaved as shown on the screen. Roy muttered that there had been no intelligible transmission so far; the pictures on the screen suggested a chaotic jumble of randomly occurring geometrical forms.

Only a minute later, however, he admitted that there was nevertheless some kind of meaning in the figures dancing on the screen. There were distinct triangles and ellipses and broken lines; shining spheres swept past, the whole screen was suddenly filled with something smudgy and very similar to a giant squid. Henry exclaimed that it resembled an ordinary cell. Roy wanted to object, but the blob vanished before he could do so: a new shape was pulsing on the screen like an ordinary and very simple crystal, but no sooner had the brothers agreed that it was indeed a crystal, when it began emitting rays, then it exploded and disappeared in a cloud of sparkling black smoke. It had become the epicentre of an explosion that was expand-

ing in all directions, bursting from the screen into the auditorium.

This transmission broke off as suddenly as it had begun. The screen went dark. The dispassionate voice of the deciphering machine announced that one thousand millionth of a second of light stream had been deciphered after being processed in the apparatus. The next interval, of approximately two seconds, was so complex that it could not possibly be deciphered, but it ended with the same call sign: two-two—four, two-two—four.

Roy switched off the screen and looked in amazement at his brother.

"D'you know what all that damned stuff we just saw reminds me of? The visions you had when you were ill!"

Henry looked doubtfully at the blank screen.

"I don't remember my dreams."

"I do. I don't mean the vision in which you suddenly declared that you were a brilliant mathematician, but the meaningless images that flashed across your brain."

"Whether it's on the screen or in the brain, anything obscure seems identical to us. Only a specialist on antilogic such as Harrison could have classified the various forms of obscurity, but Harrison is dead. Switch on the screen, Roy."

Roy demurred. He remembered Andrei's cry of "Oh, horrors!"

"Wasn't it during the next stage of decipherment that Andrei shouted those words? If so, there was danger lurking in the pictures

we are about to see. He must have had some reason for shouting 'Help!' "

"Not in them!" snapped Henry impatiently.

"Are you sure?"

"Yes. Andrei didn't mean himself. He had, of course, seen something appalling on the screen, which was why he had cried out, 'Oh, horrors!'. But the appeal 'Help!' had been involuntary; people shout like that when someone else is in dire straits but they themselves are helpless. Andrei had not fled from the apparatus but had pressed his face right up against it, which was why his shout had been so muffled. Don't worry, we'll be more careful than Andrei. Switch on, switch on!"

## 4

And immediately a picture of the disaster that had struck somewhere deep in the globular cluster flashed up on the screen.

The star was expanding and heating up beyond the limit. And this time there was something ominous in the way it swelled. There was a lack of proportion; it was no longer a rhythmic pulsation, the work of the space transmitting station, but something elemental. The star had gone out of control. Catastrophe was inevitable.

The planet-building appeared on the screen again, but this time it was being mercilessly destroyed. The hitherto majestically flowing Centaurians were flinging themselves like

fiery fountains from inside it. As they died, they struggled towards their transport globes. Some of the creatures managed to slither fully or partly into them, the globes took off and sped away from the burning surface, but even at a distance from it they perished—the hungry flames turned them into torches flying through the dark void, then the torches went out and nothing but dull clouds of plasma rushed onwards through space. On the surface, still more Centaurians were hurling themselves into the open; there were more of them than globes and not one of them managed to wriggle as far as one of these craft. After a little while—in screen time it was only a few seconds—no more Centaurians appeared, there were just dense, multicoloured and rapidly dispersing patches of steam escaping here and there from the interior... And the scientists, staring transfixed at the terrible scene, realised that each puff of steam whirling upwards was another inhabitant who had perished under the surface.

"How horrible!" muttered Henry, shaken.

As if in answer, the artificial planet vanished from the screen and there was another view of the planet with the hornlike towers. The exploded star was bearing down on it, the struggle between reason and the elements continued. The star was flying apart, the controlling planet was desperately trying to restore it to its regime. All the towers were pulsating and rapidly changing shape. For one moment it seemed as if reason would triumph and the control would be regained over the

cosmic forces at last. The pulsations of the towers reached their climax and the star, still breaking up, pulsated more and more violently in reply. It was still expanding, but more slowly and in bursts. The bursts gradually fell into step with the rhythm of the towers until they were synchronised. It was probably at this point that Andrei had shouted "Help!"

The momentary hope faded as another explosion broke up the pulsations. The brothers saw the controlling planet disintegrate into a mass of flame, smoke and gas. And in the flames and the smoke, slowly tilting and falling, the collapsing towers still went on pulsating...

The screen went dark. There were no more deciphered transmissions.

## Chapter Five

### THE PROBLEM OF THE COMPATIBILITY OF DIFFERENT CIVILISATIONS

### 1

Roy studied Andrei's pale face with a troubled gaze. For seven long days it had been nothing but a lifeless mask, a plaster cast that had fixed one of the thousands of constantly changing expressions on his once amazingly mobile face—a petrified grimace of suffering and pain. The blood was now returning to

his cheeks, his eyelids were trembling and he was breathing more deeply.

Araki laid a warning hand on Roy's shoulder and whispered firmly:

"Keep calm! He mustn't see how upset you are."

Roy leaned back in the armchair and tried to make his smile seem unforced. Andrei stared impassively at the ceiling. His gaze betrayed emptiness and aloofness from the outside world. He was already conscious, but was still absorbed in himself. He was listlessly becoming used to his own body. First he had to realise that he existed, then he merely had to find out how and amongst whom. Everything happened as Araki had predicted. After about five minutes, Andrei would turn over and recognise Roy; it was merely a matter of waiting patiently for him to do so.

Andrei turned his head, glanced at Roy—with the same impassiveness at first, then with gradually growing interest. Astonishment suddenly dawned in his blank stare: his first meaningful expression, signalling the return to consciousness. And his consciousness woke up with a start. Andrei raised himself up a little way on the bed. Roy and Araki hastily took him by the shoulders and made him lie down again: he must not make sudden movements.

In joyful surprise, Andrei whispered weakly and hoarsely, but clearly:

"Well, here I am, alive! I thought I was finished!"

"If you had been, you wouldn't have thought anything," objected Roy cheerfully.

Araki made a gesture of warning. Roy signalled with his eyes that he was going to observe Araki's stipulations. Araki grinned glumly and shook his head. The conditions were not being fulfilled, there was too much joy in Roy's words and it wasn't going to get any better. Araki himself, however, was not sure whether what had seemed better at first was really turning out to be so: the patient's return to consciousness had been unexpectedly rapid.

"Roy, the apparatus? It wasn't damaged, was it? Such a shock!" whispered Andrei.

"It was a terrific shock," confirmed Roy. "It's hard to estimate the force. But the apparatus is in one piece and the decipherment of the signals is continuing. Although nothing's been received that you don't know about," he added hastily, noticing that Andrei had made another effort to sit up.

The patient rested for a while. His face was irradiated by a faint smile and his eyes began regaining their old sparkle.

"It wasn't a shock from outside," he said distinctly. "The discharge was in my brain... That's why the apparatus... Something happened to me... Was it just to me?.."

Roy glanced interrogatively at Araki, who decided that it was his own turn to speak.

"You're perfectly right, there was a severe inter-cell shock to the brain. I must tell you right now that the causes are uncertain. One

more thing: the cells didn't burst and you'll soon be back to normal."

Andrei half-closed his eyes. Roy thought he was falling asleep. He rose quietly to his feet, meaning to go out, but Andrei opened his eyes again. He was now looking at Araki.

"You don't have to bring me back my health quickly," he said. He spoke more clearly and firmly with every new sentence. "I want to be ill for a while..."

"Don't worry, everything's under control," said Araki hastily. "We know our job, you need have no doubt of that. And everything needed..."

"No. You don't understand..." He looked beseechingly at Roy. "You see, it'll never happen again!.. Roy, please try to understand!"

Roy now knew that there was no need to hide anything from Andrei any more.

"All your visions are being recorded, Andrei. And I can assure you that we shall do it much more thoroughly than when Henry was ill. Not a minute of your illness has been lost to us."

"Didn't I discover anything in my delirium?" whispered Andrei hopefully. "You remember Henry's mathematical discoveries..."

"No, you didn't make any discoveries, but you clarified some interesting laws. We'll tell you about them when you're a little stronger. You won't have so long to wait."

Andrei looked dissatisfied again. As before, he didn't want to get better too soon. From

his whisper, weakening and returning to coherence by turns, Araki and Roy grasped that Andrei wanted a drug to aggravate, not quell his delirium. He kept repeating that such a rare opportunity mustn't be missed: his visions had been sparked off by powerful forces whose nature must be fathomed whatever happened. His personal failure could prove to be a happy event. He demanded to be treated with an insanity stimulator to aggravate his illness, though without jeopardising his chances of ultimate recovery, since he certainly didn't want to die.

"There can be no question of special insanity stimulators," declared Araki emphatically. "Any drug of that kind will be a deadly poison to you. I repeat, don't worry, from the very first moment we saw you not just as a case for treatment, but as a subject for study as well."

Andrei turned to look at Roy again and whispered sadly, "Roy, that civilisation... Has it really perished?"

"There have been no more transmissions and the old ones are being studied."

Andrei lapsed into unconsciousness again. Araki stood up and asked Roy to go with him. Roy silently walked through several rooms adjacent to the ward in which Andrei was lying. The instruments recording the sick man's brain functions were in Araki's office. A good third of the wall was taken up by a screen displaying the deciphered scenes of Andrei's recent delirium. Roy glanced absent-mindedly at the pulsating figures and lines

and went up to a second screen set in the wall a little further away.

He stood for a long time before this half-transparent sheet, two metres by one and a half, in its frame of bright plastic. A broad, silvery-golden river was streaming across the middle of the screen. It was running from right to left, now flaring up into a pattern of bright dots, now dimming down again. Its edges were curving this way and that, and little parallel side-streams were snaking out from the main stream and then rejoining the river. The river seemed to be moving through a pattern of continually changing lace. It was an amazing stream: it had been discovered three centuries ago, but it was a long time before it could be explained by formulae and curves. It remained as a logical category, a social concept, unquestioned but unstudied, a psychic rather than a physical field, and that was what it was called: a social psycho-field. Less than twenty years had passed since the day when Albert Boyachek demonstrated the mathematical formulae he had found for the psycho-field, and it became possible to model the creative level of society. Humankind's spiritual potential, formerly something intangible, became a subject for precise measurement. The picture on the screen in Araki's study was a copy of the psycho-field potential being recorded non-stop in the Directorate of State Machines. Araki had been authorised to reproduce it in his own lab for the purposes of research on Andrei's psyche.

Roy had now taken to the immoveable

picture of humankind's spiritual potentials. It changed little on the screen, the only changes to be found were on the decade scale; fairly frequent at first, the leaps of brilliant discoveries were becoming less and less frequent, the rise of the creative potential was being determined more and more by the efforts of society as a whole and not by bursts of inspiration on the part of exceptionally talented individuals. "All our society is gifted now," was how Boyachek had recently summed it up. Roy had often, even before Henry's illness and especially during it, studied this pattern on the screen so closely that there was nothing unfamiliar or surprising about it as far as he was concerned. And he had been looking not at a broad silvery-golden stream, with all its countless shining dots moving from right to left across the screen, but at a fine, thread-like line wriggling near the frame—in medical jargon, Andrei's psycho-factor. And although Roy was well aware that the narrow brook running below the wide river would not yield up its secrets so easily, he still could not take his eyes off the screen. It was always like this when he walked into this office: he would stand for hours in front of the psycho-field screen, staring and thinking hard.

"I can't understand why you're so bothered about Andrei Korytin's psycho-factor," said Araki, shrugging his shoulders.

"I've already explained to you, Kon," replied Roy with restraint, sitting down at Araki's desk.

"Yes, you have: Andrei's sick psycho-field might influence the spiritual potential of society as a whole. I've been thinking about your explanation. The social psycho-field is made up of twelve thousand million individual psycho-factors..."

"Healthy ones, Kon!"

"And tens of thousands of sick ones too, Roy. Or do you think that Andrei is the only person under treatment? Accidents, the ailments of old age, the rare but not yet obsolete cases of atavism and degeneration—they're all there too!" Araki pointed at the screen. "But they're not the ones that determine the mighty level of our spiritual possibilities."

Roy grinned mistrustfully.

"It sounds convincing. But not to me. Yes, of course Andrei's psycho-factor is a drop in the ocean. But what if it's a drop of poison?" Araki wanted to object, but Roy wouldn't let him. "You're a physiologist, Kon, your job as a scientist and a human being is to seek out the causes of illness and get rid of them. What's bothering me isn't the cause but the purpose of the illness, the goal for the sake of which the illness may have been brought into existence."

"As before, you think that the death of Spenser, Harrison's suicide and Andrei's accident conceal a conscious evil being communicated through them to the whole of humankind?" commented Araki. "The experiment I have prepared may give some kind of answer to this question of yours.

Even so, it seems to me we could argue..."

Roy didn't want to argue. Nothing would come of an argument—experiments were needed, not words. No one had proved that blows to the individual psyche could damage the spiritual potential of society, but the converse had not been proved either, namely, that the social psycho-field was immune to such blows. The spiritual level of society was in no way arithmetically connected with the individual levels of people. Did not the psycho-field respond with an upward surge to the appearance of the Aristotles, Newtons, Einsteins, Shakespeares, Ngoros and Tolstoys? Or had there never been historical examples of the masses being gripped by something approaching madness? Had not the bloody crimes of fascism been an act of social madness? What, if not a morbid psychosis, was the theory of supermen, of a higher race, of an élite who, as distinct from the masses, were allowed everything and who were beyond morality? He was posing the question: is it possible, by influencing the psyche of the individual, to inflict a painful blow on the psycho-field of society? If such a possibility was feasible, then the possibility of evildoing on a gigantic scale was also feasible. A secret enemy, by cunningly affecting the brain of the dupe who fell into his snare, would be capable of reducing the whole of society to madness, of mastering it, of turning a great community of proud and freedom-loving individuals into a grey mass of humble slaves!

Roy pointed to the psycho-field screen.

"Kon, look at that mighty flow of society's psycho-potential. Externally, it looks very similar to the graph of our energy capacities. Earth's energy system delivers trillions of kilowatts. It is controlled by command machines, and the command machines are controlled by human beings. The energy system is ingeniously safeguarded against tragic occurrences and there haven't been any accidents for a long time. But if the duty engineers should suddenly go mad and take it into their heads to put the command machines out of action... It's appalling to think what might happen then! And so I want to know for sure: is there any likelihood, in the mutual relationships of the psycho-field and the individual psycho-factors, of a disruption of equilibrium similar to what is certainly not out of the question in our energy systems? Give me a final answer: can the psyche of an individual play the role of the push-button that starts or stops the gigantic energy system that we call the social psycho-field? That's what I'm asking."

Roy seldom lost his composure, but this time he was so nervous that he raised his voice in spite of himself. Araki was deep in thought. Roy turned angrily away from him. He had personally asked Boyachek to assign to Kon Araki the investigation of the strange psychic phenomena that had become increasingly frequent since the starship disaster. Roy had agreed that he would leave the general physics of the problems to his own

lab, but he would hand over the psycho-physics to more competent researchers. There was no psychophysicist in the world more important than Kon Araki. The times were long past when researchers were experts on narrow branches of learning. Roy himself could have served as an example of the universal man, but even he was a long way in this sense from Araki, a brilliant medical doctor, physiologist and psychologist. Roy hadn't doubted that the joint work would go well. But it was going badly. Araki set up experiments quickly, but he did not share Roy's doubts and fears. He brought a spirit of irony even to experiments which he didn't dispute. But he did dispute the ultimate goal. Roy didn't know what to do about it—the relationship was exasperating him.

"Personally, I can't understand why you're so opposed to checking my hypothesis," added Roy with annoyance when he was convinced that Araki had no intention of breaking the prolonged silence.

"No, I'm not opposed, friend Roy," began Araki slowly. "You put it well: not the cause but the purpose of the malady... In the shocks to the psyche that we are investigating, you see evil being done to humankind, an attempt to blow up our psycho-system. But the converse is also possible: not evil, but good; not attack, but defence! A forced and ugly form of defence, but defence!"

"Insanity as a form of defence? Can you substantiate that?"

"No. I can only express, not prove. I agree

with you: we need facts, not words. I will just add one thing: I am sure of the durability of the human psycho-system. I am sure that it has powerful means of opposing any test. Now let's go to the New Forms Synthesis Lab and see how they've prepared the experiment with Harrison and Spenser."

The New Forms Synthesis Lab was situated at the other end of the Physiology Institute. Getting there took some time, on top of which Araki kept looking into various rooms, always asking Roy to excuse him, and with Roy merely shrugging his shoulders eloquently each time. When they had gone down to the eigth underground level and had begun walking along a gigantic concrete corridor without any doors, Araki asked Roy if he had ever been in this lab. Roy knew all the institute's labs, he had even been to where they were raising synthetic living beings. So far, he had not been much interested in the Synthesis Lab. He had too many headaches puzzling over natural beings without adding to them by worrying over artificial ones.

Araki laughed.

"We have not been studying artificial beings from the viewpoint of additional worries. But creating an artificial brain for Harrison and Spenser gave us problems. As you know, the million cells available in the Repository as passports for Harrison and Spenser were not enough for our experiment."

Roy nodded silently. The machine called

the Repository had only those data about each person that were necessary for the security of his air flights, travel by land and sea and the preservation of his health. And it was not coping even with those simple tasks, as was shown by Harrison's suicide and Andrei's accident. The Repository could not be blamed for the starship crash, since its zone of activity was confined to Earth. And that anyone should have been able, out of the meagre data in storage, to reproduce a working brain had seemed such an achievement that when Roy had persuaded Araki to take it on, he had at the time little hope of his request being carried out.

Araki stood by to let Roy go in first as they came to the room to which the bodies of Harrison and Spenser had been transferred.

There were two sarcophagi of superdense plastic on a table in the middle of the room. The two corpses were clearly visible through the transparent sides. No changes had affected them since the day when Roy had last seen them. Harrison was bigger than Spenser, the other having shrunk more, but in everything else they were identical: each was a replica of the other, and both were devoid of individual features to such an extent that the unfathomable universality alone was an amazing distinction. And again Roy thought about what always came to mind whenever he remembered them: if a mighty master existed who wanted to create an artificial human to keep watch on people, he would have created

a spy in just this form out of common, calculated features.

Two dead men were lying before Roy in transparent sarcophagi. They were pseudo-humans, not humans. Pseudo-humans were living among human beings. At present it was only an ominous guess; tomorrow it might become incontrovertible fact!

Araki walked briskly round the sarcophagi, critically fingering the thick cables and flexible tubes that festooned the base: they were to deliver and extract energy, chemical substances, water and gases. Along three of the walls were ranged in a gigantic oval the machines that were to regulate the flow of the nutrients in the animated bodies.

In the centre of the oval towered two artificial brains—tall cylinders with cables leading to the sarcophagi and with wires communicating with all the feed mechanisms.

Araki rested his hand on Roy's shoulder.

"Tomorrow at twelve, friend Roy. Come with Henry and Armand. Boyachek will be here."

Roy walked along the Ring Boulevard. Wind and rain had been planned in the meteograph and a downpour was due to start after dinner. He sat down on a bench. He had sat on the same bench a month previously, when the Indian Summer was beginning and the air had been warm and languid. Then, too, he had been tormented by difficult thoughts, had been beset by riddles, had lost his bearings among them, but he had believed that a

day would pass, then another, then a week, and everything would be illumined, everything would become comprehensible and would fit into a pattern. Instead, four weeks had passed and everything had become more obscure. The old riddles hadn't been solved and new ones were joining them. There was Spenser, there was Harrison, there was Henry's illness. He had recovered since then, it was the only bright spot: Henry was his old self, energetic, keen, infecting others with his own enthusiasm...

But Ollie had joined Spenser and Harrison, the transmissions on a faster-than-light agent had been discovered and it was unlikely that any good could come of them; Andrei Korytin had nearly met the same fate as Spenser; and pseudo-humans had appeared amongst human beings...

Roy turned up his collar. The wind rose suddenly, the leaves whirled in mid-air. The darkness deepened, and it turned cold. At last, the rain came down.

## 2

When Roy, Henry and Armand went into the New Forms Synthesis Lab at five seconds to twelve Boyachek was already standing by the sarcophagi containing the bodies of Spenser and Harrison and was listening to Araki's explanations. Roy and Armand knew everything that Araki was telling him, but once again they mentally went through all the stages of the

experiment with him. Henry had only a general idea of it, so he was listening with interest.

Araki was pointing at the transparent boxes; the bodies in them, now partly covered with sensors and feeders, were festooned with wires and pipes. He said that it had been called an experiment in animation, but in fact there can be no animation of the dead. The resurrection of the dead had not yet become a subject for experiment; for the time being it belonged to legend. The mighty and impersonal machine called an artificial brain would model the elementary life processes at cell level, but would not re-create that highly complex, irreproducible combination of them which is called a living body.

"One more point," continued Araki. "We are resurrecting the cell life in the bodies of Spenser and Harrison not in the forward, but in the reverse direction. We shall make the cells in all the tissues run through the stages of development in reverse: from a condition typical of adult males to conditions typical of the young man, the adolescent, then the infant, then the embryo. We will be able to reach the moment when each of the bodies lying in front of us now will disintegrate into its initial parental cells. The receptors and feeders mounted in the room will deliver to the body cells all the substances necessary for the reverse process, will suck out all the waste products, all forms of energy once absorbed by the bodies and now being returned. During the reverse development of the bodies, their condition at general cell level will be

continuously analysed and also, with particular thoroughness, the nature of the genetic molecules responsible for building each cell. Analysis has shown that Spenser and Harrison resemble human beings only externally, but there are important differences from the average human in the cell structure of their tissues. Our objective today is to find out whether Spenser and Harrison were created with internal deviations from the human structure while still in the embryo stage or whether they acquired these differences later. Were they born non-human, or did they only develop into non-humans?"

When Araki stopped, Boyachek asked a question:

"Human development from the parent cells to adulthood takes approximately twenty years. We know that modelling the reverse development is an accelerated process. By how much has it been speeded up? Will we have to wait a long time in the lab for the results?"

"The process has been accelerated by a factor of approximately one hundred thousand," replied Araki. "In modelling the reverse development, we shall compress twenty years of direct development into two hours."

"We can wait for two hours," agreed the president.

Araki invited him into the operational room. This was a transparent covered gallery overlooking the main lab. From there it was possible to watch what was happening below

where the two sarcophagi stood and to monitor the machines mounted on the inner wall. Boyachek, enormous, round-shouldered, his hands behind his back, walked slowly up and down along the line of machines. Armand and Roy sat opposite the "discrepancy summariser", Armand's name for the complex instrument that indicated the degree of variation in the structure of Spenser and Harrison from the human average.

Henry merely threw an absent-minded glance at the command and analysis apparatus, went up to the transparent outer wall and looked down.

Below lay two dead men about whom only after their deaths had it become known that they were not humans at all, but pseudo-humans, as his brother called them. Henry had spent several days in the starship lounge with one of these pseudo-humans: they had eaten together, chatted and admired the starry sky on the screen. He was just a person: somewhat dry, untalkative, reasonable, disinclined to smile, but when he did so, his expressionless face became attractive. He aroused no particular liking, but he wasn't unpleasant, he simply seemed withdrawn. He was one of those people about whom one only learns something after long acquaintance. Subsequent events had shown that even years of close acquaintance wouldn't have been enough for an understanding of this strange being! Roy attributed the starship crash to the extraterrestrial nature of this apparently ordinary person—one riddle proved to be

simply the consequence of another. Roy could be right. Too many tragic consequences could ensue from such a possibility!

Henry had seen the other man, Harrison, for the first time in the transparent sarcophagus specially built for him. He was also not a human being, as the impartial chemical analysis had shown. And this stranger, the pseudo-human Harrison, was somehow mysteriously tied up with Henry himself; his amazing mathematical illuminations had been repeated as delirium in Henry's brain. What was the connection between them? Why were they connected? How had the connection been made? And what had caused Harrison to take his own life? Suicide note to Andrei had, after all, been a wail of despair! What had evoked such a frantic explosion of feelings? Araki, Roy and Armand were preoccupied with one question: had they emerged as ready-made pseudo-humans or had what was alien in them been the result of planned development? All this was undoubtedly important. But no less important was why Harrision had fallen into despair. Here was the real clue to the mystery! Very well, today Araki was going to prove that they were not human freaks of the kind that sometimes occur in life, but something deliberately built by someone. Would this explain why one had caused the starship to crash and the other had fired an electric charge through his brain?

Lost in thought, Henry missed the moment when the machines began working. Roy call-

led him over and pointed to the "discrepancy summariser". Two bright red curves had appeared on the screen: one, motionless, conventionally indicated the summary structure of the human body, the second, which was undulating smoothly, represented Spenser, and underneath, very much like it except for the minor details, was Harrison's curve. The difference between the first curve and the other two was very conspicuous. Araki drew the viewers' attention to the fact that if normal people were expressed symbolically on a "discrepancy summariser", their curves would not be identical either, but so marked a discrepancy is never observed. "Has not been observed," thought Henry, mentally correcting him. Araki was absolutely sure that Spenser and Harrison were not human, and this was still to be proved.

Henry looked down again. The bodies in the sarcophagi were no longer visible. It might be that the coffins were filled with light-absorbent gases, or a special screen had been slid over the sides. And the dead bodies were boiling in the dark! A less lurid word was needed than boiling, but Henry liked it because it was appropriate to the speed of the reactions raging in the once dead cells. And that was how Henry put it to Araki when he came up to him:

"They're boiling!" and he pointed downwards.

Araki shook his head.

"The wrong image, friend Henry. Boil-

ing is a process that travels outwards: something is forcing its way out. But here it's the reverse: a falling inward. Dessication, melting, dissolving, condensing—these words are also inaccurate, but they convey the direction of the process more accurately."

Unwieldy, ageing, scowling, Boyachek was pacing up and down along the line of instruments. Henry kept glancing at him with affection. He liked everything about the man: his perspicacity, his thoughtful kindness, even the peremptoriness of his demands and decisions, and the sarcastic smile with which he listened when he disagreed with something. Roy went up to Henry and tugged at his arm. Araki was pointing worriedly at the traces on the summariser screen. The lines of Spenser and Harrison had suddenly *lost their distinctiveness and were getting* closer to the basic curve. Araki operated a switch to retard the process and a minute later stopped it altogether. Both individual curves were running parallel to the main one and almost merging with it.

"Genetic interference at the embryo stage," announced Araki gravely. "Both had human parents. The change in development occurred during the first week of existence in the womb."

"Did this happen to both simultaneously?" inquired Boyachek.

Araki was unable to give an exact reply. Simultaneity was not excluded, but it hadn't been proved. One thing was certain: Spenser and Harrison had both begun their existence

in the womb as human beings. Then a mutation had occurred: the genes of the embryos had undergone a sudden change, very complex and one might even say treacherous. The result had been neither monsters nor cripples, but outwardly human, healthy, functioning beings, but with some kind of hitherto not fully fathomed fundamental difference that particularly affected the brain. Unfortunately, this was the one aspect of the problem that could not be investigated, since the bodies of both had been preserved but the brains had perished. And not by accident! If the destruction of the brain in the one case could be attributed to external circumstances, Harrison had deliberately destroyed his own brain.

"So pseudo-humans exist," stated Roy gloomily.

"Let's discuss the results of the experiment," suggested Boyachek.

## 3

Araki wanted to hold the discussion in his own office. He went on ahead, chatting with Armand on the way. He was followed by Boyachek, who walked with a stoop, his hands thrust behind his back. Roy and Henry walked side by side. Roy was silent, and his silence was more eloquent than speech—he was preparing to convert the nonbelievers to his own faith, including his brother, Araki and Boyachek himself; he

was arming himself for a battle of words.

Henry didn't know whether he was going to argue or sit it out in silence as he had done before when his brother, having fallen for some conception or other, was insistently trying to impose it on everybody else. Henry was astonished to find himself thinking that he had no firm conception personally. He even wanted them to attack him heatedly, zealously dragging him into their own faith; resisting them, he might tie up his objections into something coherent. It often happened like that during arguments with Roy. And his brother would be the only person with whom for sure he wouldn't agree.

In Araki's office, Roy stopped in front of the psycho-field screen once again. Peering glumly at the silvery-gold stream flowing across the dark hinterland of the screen and at the thin, wriggling line of Andrei's psycho-factor, Araki announced to no one in particular that there had been no changes in Andrei's condition, he was certain to recover, but it would be a prolonged process. Boyachek sat down, stretched out his huge legs, leaned back in his armchair and folded his hands on his stomach. The president of the Academy was too unwieldy and did not fit into his surroundings. Henry thought that if it became necessary to portray an emissary from other worlds, then Boyachek, with his massive head, broad face and disproportionately big nose, pendulous cheeks, stooping figure, waddling gait, arms like levers, with palms the size of a spade—would look

far more convincingly like a denizen from distant star worlds than the self-effacing Spenser or Harrison!

The president waited for all to make their points and then began speaking. His voice, too, was purely his own and different from the others—powerful, of course—everything about this man was powerful. Muffled, but not hoarse, it emerged from deep down inside his chest, and it was many-toned. It had insistence, and kindness, and well-meaning irony, and mistrust; and all this was expressed by sounds alone.

"Well, then," said Boyachek. "What philosophical system will you propose to us, friend Roy?"

Roy was not intending to propose any new philosophical systems. He would stick to the facts. He put this dryly and precisely. He successively enumerated the recent discoveries. A rational new civilisation had been discovered on the outer fringe of the Galaxy. Its standards of technical development were higher than the human, as was clear if only from the fact that they had converted stars into broadcasting stations and were carrying out their transmissions with the help of agents that reached their goals almost instantaneously. Putting aside the baffling question of what it needed such transmissions for, it should be noted that in the technology of converting stars into transmitters, not everything had been completed, the spectacle of the disaster in Centaurus-3 had convincingly proved that. It wasn't clear

whether this civilisation still existed or had perished. Such were the main new discoveries in galactic space.

"Meanwhile certain events have taken place on Earth," continued Roy. "And they must be related to the previously mentioned facts. Rational beings have appeared on Earth, but they are not human. The first such being was Ollie the Monkey. Henry believes she was an ambassador from a society of electric monkeys, the meeting with which precipitated the *Cepheus* tragedy. I thought so too, till recently. Now I reject that idea. It's too primitive. Ollie was not an envoy from well-meaning electric monkeys whose domains had been thoughtlessly encroached on by human beings. She was the envoy of a much more powerful civilisation than that of the Charybdians, perhaps the one whose transmission we have managed to detect, albeit fragmentarily. And what we have seen of it testifies only to the fact that it has adapted to the living conditions of the Charybdians. If Ollie is to be considered an ambassador, then it was not to the human race but to the inhabitants of Charybdis. She was carrying information about the Charybdians to those who created her. And when human beings suddenly appeared, whom no one naturally knew, since man had only just emerged into space, Ollie's creators instructed her to change her place of residence at once. They could not miss the chance of familiarising themselves with human beings at closer range. That was how she turned up on Earth as a space spy."

"You promised to stick to the facts," Henry reminded him.

"Very well, I'm not insisting on the term 'espionage'," continued Roy, "if the word 'spy' expresses something dirty. It has not been proved of Ollie that she brought evil to humanity; what we know suggests the opposite. Let's confine ourselves to a more noble name: 'space scout'. There can be no doubt that Ollie had been sending her masters a mass of information about humankind, including the structure of the human body. It was not for nothing that she had been studying the human sciences so painstakingly, including biology. Her communications with her masters were accomplished with the aid of that faster-than-light agent which we are on the verge of identifying. Having fulfilled her assignment, Ollie died, and her creators and masters worked out a plan to send to Earth more scouts as well adapted to our conditions as Ollie was to life among the Charybdians. They were incapable of sending us an animated doll that could impersonate a human being. Though they can transmit any information or orders to all intents and purposes instantaneously, for the transmission of bodies they have to fit out ships, and the speed of the starships, even in the faster-than-light range, is not infinite. Their project was precise and reliable. They did not set out to create human beings, but engineered mutations in the genes of embryo human cells. They redesigned a human being. And so cunningly, so cleverly, so brilliantly, that the

human, externally a man, was transformed into a sensor to pick up the information they needed, an instrument at their beck and call, a living instant communications transmitter. In this way, the pseudo-humans Spenser and Harrison appeared amongst humans. And, it may be, not only those two, who were discovered and destroyed, one being killed in a crash, another committing suicide, but dozens of others who have not been identified and have not been rendered harmless."

Araki nodded. For the time being, he agreed with Roy. Unfortunately, the brains of Spenser and Harrison had been destroyed. The biggest differences were probably in the cells inside the cranium. It was admissible that a brain specially adapted for the purpose could receive and transmit faster-than-light signals. Even in its ordinary state, the brain was tuned for emission and reception, this was the basis of all the work with psycho-factors and psycho-fields. More significant results could be expected of an improved brain.

"What are we to call improvement?" boomed Boyachek, smiling sarcastically. "Development of the means of evildoing? As far as I can guess, friend Roy is going to persuade us that the whole Spenseriad unfolding in front of us is leading to evil and has no other significance."

Roy ignored the president's gibe. He was sticking to the facts as before. The facts testified that the presence of the pseudo-humans had been detected solely because of

the disasters they had caused. Spenser, with his ability to receive signals travelling faster-than-light, had suddenly applied this in the starship's saloon to the navigation commands from the Martian starport and the ship had crashed. Harrison had transferred his mathematical knowledge to Henry, but in the form of delirious visions. And it could not be ruled out that during his fever, the mathematical truths had been poison to Henry's mind and that they were meant to play the role of an inner flame burning up the weak brain cells. Harrison had perished, his intentions had remained undiscovered. However, there was Andrei, Harrison's boss, and the disaster with Andrei left no room for doubt. Andrei had been receiving transmissions from a remote civilisation in Centaurus-3 and his brain had received a shock only slightly less violent than the one that had destroyed Spenser's brain. One couldn't deny the fact that his joint work with Harrison had influenced Andrei. Everything associated with the scouts from an alien stellar civilisation was fraught with a sinister danger to human beings!

"I cannot agree with you," said Boyachek when Roy had finished.

"You reject an accident caused by the presence of pseudo-humans amongst us?" asked Roy.

Boyachek shook his head. It was impossible to deny calamities that had already occurred. But it was permissible to deny that someone had deliberately caused them for

some reason. Friend Roy had deviated from the philosophical conception. He, Boyachek, intended to touch on precisely that sphere, on the concrete section of it that dealt with the interrelations of the concepts of good and power.

Henry did not like those areas in which only general concepts were the sole concreteness. That's why, picking up Boyachek's arguments at random, he kept glancing curiously to see who was listening and who was talking, and in what way. Araki narrowed his already narrow eyes and compressed his lips; he was agreeing and objecting, adding and elaborating without uttering a word—his face, though, portrayed speech without words. Armand was merely listening. Although he usually expressed himself impatiently with gestures and grimaces, this time the rapidly changing expressions on his face were merely a sign of attention; he was trying to fathom someone else's thought. Roy was distancing himself from all that; he was striving to refute Boyachek's ideas in advance, rejecting them with his whole inner being. Leaning back with his eyes almost shut, half-smiling and half-frowning, he seemed to be saying with bored aloofness: "All right, all right, so what next?" Henry laughed quietly. He knew that after such a silent and almost offensive reception, Roy, when his turn came to give his views, would often change his mind, declaring calmly: "Yes, you're right, I just have a few small comments." Henry had more than once

told him, "You don't listen respectfully, you listen provocatively. You make people hunt for more and more arguments, and then it turns out that they were swatting flies with sledge hammers."

Boyachek spoke. Only he did not speak, he boomed. The bass voice, issuing smoothly forth from his chest as if he did not have to pause for breath, insistently drove its way into the mind. Boyachek commanded attention, his thoughts crushed, they did not flow. People agreed with his ideas even when they were far from indisputable and now, decided Henry, Boyachek, as he had warned everyone, was talking almost in platitudes. True power, he was saying, is not capable of contradicting good. Evildoing is a sign of imperfection; it can be a sign of strength, but not of power. People do harm to others when they need to get something for themselves. Might presupposes an abundance of benefits and possibilities. Remember human history: how much enmity has been engendered by privation! As humankind developed, morality improved too. Even in the primaeval commune, they had progressed beyond the individual war, the war of each against all, then tribal, religious, national, racial and state discord died out until, eventually, they'd overcome the most stubborn struggle of all, the class struggle, the struggle that is engendered by the striving of some to appropriate the labour of others.

"You are extending human laws to the Universe," commented Roy. "But rational

beings differ infinitely in system, form and purpose of life."

No, Boyachek was not extending human laws to the Universe. He was simply finding in human life the action of more general laws. He did not believe that there were highly developed civilisations hostile to reason, and the concept of reason included an understanding of the universality of thinking beings. Humankind had once written on its banner the great words, equality and fraternity. Who could prove that this principle could not be applied to the whole Universe? In that case, it would sound as follows: all highly rational civilisations are friendly. And the higher the civilisation with which contact is made, the more likely it is that we shall meet a friend in it, not a foe. Whatever amazing life forms may be discovered, whatever social structures may be encountered, humankind will not have to review the foundations of its morality. If biological forms of existence are different everywhere, ethics is universal. Mutual aid is good everywhere, but the degradation of one's neighbour, the desire to drain him dry, is evil.

"But is there a material basis to morality?" inquired Armand with lively interest. At each suitable opportunity, he tried to translate abstract concepts into the language of physical magnitudes that was closer to him. "Let's take goodness at a molecular level. The chemical structure of goodwill. Electronic currents of treachery. Quantum focussing of hostility and hatred. An atomic

image of one creature's exploitation by another. Why not? There are physical causes of insanity, after all! It can't be ruled out that we may even discover a field of injustice."

Boyachek answered with a smile.

"We sociologists will say thanks if you translate our concepts into your own language. But I have my doubts. Madness, a healthy mind—these are physical conditions of a person and you describe them in physical magnitudes. Injustice is a social concept, it characterises a moral level of society."

"I would suggest returning to the main problem facing us today," said Roy dryly. "Who are Ollie, Spenser and Harrison? What is the purpose of their appearance on Earth? I am asking this question concretely, but so far I see no answer to it."

Boyachek did not consider that the appearance of Ollie, Spenser and Harrison presented such a serious problem. Answers to it, moreover, had already been given. Terms like ambassador, spy and scout were being used. The language of ancient diplomacy hardly corresponded to interstellar relations. Formerly, all problems had been exhausted by intercommunication within a biologically homogeneous society. We now talk about universality of reason, universality of the higher principles of morality, but certainly not about the universality of biological forms of existence, and this creates its own special difficulties. The first was the physical incompatibility encountered by the luck-

less *Cepheus*. Humans had incautiously barged in on the Charybdians and had paid for it with their lives. "The preliminary study of forms of existence," continued Boyachek, "is an obligatory condition for the intercommunication of different civilisations. And before contact takes the form of communication between all members of society, they send a secret emissary. That emissary must have an external appearance to conform with the civilisation under study, it must be close to it, immanent in it, so I maintain."

"Divinity in the form of Neanderthal man?"

"Rather the genes of divinity in the body of Neanderthal man, to follow up your joke, Roy. For the brain of the emissary must, in general, function on the level of the civilisation in which he is operating. The emissary can also act as a catalyst, but only within the limits of that society's possibilities. Now to return to Ollie. You are right. She was on Charybdis as the emissary of a higher civilisation. She landed on Earth, as you have been trying to prove, unexpectedly; but once she was here, she realised that she was of little use for setting up communications with human beings. The information she sent back made it possible to work out another means of making our acquaintance. Thus Spenser and Harrison appeared, and perhaps some hitherto undiscovered friends of theirs who are wandering about undetected in our midst. I think, however, that until the accidents, these beings sincerely

regarded themselves as human. Their role is still a mystery to them."

Roy commented that in answer to his viewpoint, he had simply been presented with another. Each was trying to prove the likelihood of his own conception. But the likelihood and nothing more. Authenticity was needed, not hypotheses. The existence of extraterrestrial emissaries was authentic. But what was the explanation of the disasters they had caused?

"You and your brother have given us a vivid picture of the Centaurians' broadcasting station being destroyed," said the president calmly. "Is it not logical to allow that there was a sudden change in the signals, and this confused Spenser and Harrison? The disasters on Earth were simply echoes of the catastrophe that occurred so far away."

Roy shook his head disbelievingly. They must break free of guesswork. Only the facts could convince him.

Henry said that he could report a number of facts. His brother stared at him in astonishment. What facts could there be that were not already known? Henry explained that he'd finished checking one hypothesis only that day and hadn't had time to let them know his conclusions.

"Go ahead," said Boyachek.

"No one will dispute that the events on Earth and Mars were in some way connected. I've checked the timing. Spenser began sitting up on the couch at the precise second

when Andrei detected the decipherment of two-two—four. At the exact second! But that's not all. We've said nothing today about Artemyev, and he can't be left out of it. The translation of the dream, as usual with Artemyev, was being prepared in advance, but the actual dream began precisely at that moment. Both the starship crash and Artemyev's dream took place during the reception of signals from Centaurus testifying to the disaster."

"Convincing!" said Roy. "But you didn't say you were intending to compare these events in time."

"The thought occurred to me when you were trying to prove that the emissaries from outer space were agents of evil. Ollie and evil! To me, it just doesn't add up, Roy. A highly developed civilisation can do damage without sending agents; by a direct invasion, for example. And I remembered Spenser's mad eyes, Roy! Until that moment, they had been normal, humble receptors of daylight, but not piercing radiators! Even if the tragedy had not happened soon afterwards, the instantaneous change of itself testified to an appalling event. I remember the fear that came over me at that moment."

Roy was almost convinced, but he wanted to discuss the conclusions drawn from these objections. Very well, let good be the norm and let accidents have been caused by unknown catastrophes. There was sense in that interpretation. But it didn't solve the problem

of how to struggle with the Spensers who sometimes went disastrously mad? What did their madness bode for humankind?

He turned to Araki, who had been silent all through the debate. He had been wanting to finish the argument that had flared up in Boyachek's presence.

Araki said cagily that working out methods of defence was the concern of the physicists rather than that of the physiologists. All the disasters they had been discussing, the starship crash and Henry's illness, had been triggered off by physical causes. As for madness, he would repeat that madness was a reaction to shock, and sometimes it was a form of defence against more ominous consequences. Society as a whole was not threatened by such acts of madness. Madness remained an individual misfortune.

"A very profound thought," said Henry excitedly. "And it seems to me that it gives rise to important conclusions. I'm going to think about it!"

"Let's leave it at that, friends!" proposed Boyachek. "To sum up: the research is to continue and any conclusions are to be reported."

The brothers went back home on foot. Henry said nothing almost all the way. Roy asked him what he was thinking about.

"Harrison," said Henry.

"Harrison? What's Harrison got that Ollie hasn't, or Spenser?"

"Many of the mysteries about Ollie and Spenser have been cleared up," said Henry

thoughtfully. "But there's one riddle about Harrison that's bothering me most of all. It seems to me that if we don't understand it, we won't understand anything."

Roy looked dryly at his brother. It was just like Henry to exaggerate. Everything he didn't understand seemed vitally important to him. Then, after he had sorted it out, he would admit that the unknown had been hiding a triviality, and the disclosure of the triviality merely rounded off a detail and didn't open up any new horizons.

"What incomprehensible act on Harrison's part seems to you to be the clue to the mystery?" asked Roy.

"His suicide," replied Henry.

## Chapter Six

THE GOOD GOD BALDER STARTED HAVING BAD DREAMS...

### 1

The dream was of the kind that is classified under the categorical word "meaningless".

But it happened three times, image for image, sound for sound, shadow for shadow. Henry grinned in bewilderment when he woke up after the first dream; he was astonished after the second and said to his brother, "What drivel is crawling into my head, Roy!

I shall soon beat Artemyev at his own game"; but he was shaken when it happened to him a third time. He sat straight up in bed and immediately, consciously this time, reconstructed it again in his mind: a desert blasted by a black sun, a white sky; two black arms moving over the desert, just arms, no legs, no body, no head; the arms were walking like legs without resting on the sand; there was a thunderous roaring, whistling and rumbling; the arms broke into flight, intertwined, clutched at the missing head, the fingers interlocked and fell; the black sun was disintegrating into dazzling green fragments; one of them crashed down on the fleeing arms; the arms suddenly detached themselves from the missing body, and catching at the soil with their fingers quickly crawled in different directions: writhing, hopping and darting about convulsively; they lived and moved together but were dying separately; as they died, they became yellow, sun-yellow, the colour of destruction. Eeee!.. A wail echoed piercingly over the hills, announcing the end of the dream; it was time to wake up, and Henry did so.

There was no significance in the dream itself; the significance was in its recurrence. But Henry could not fathom why the same nonsense kept recurring. Roy shrugged it off when Henry told him about the second "dream fit", as he called the repetition, and grumbled that Henry had a long way to go to catch up with Artemyev: all his dreams were properly plotted. He also advised his

brother to consult Araki or record his dreams. After the third time, Henry switched on the dream recorder at night, there was no recurrence. "Doesn't *want* to be recorded," thought Henry with fresh astonishment.

Meanwhile, Roy and Armand were busy deciphering the latest signals from Centaurus-3. Henry couldn't explain to himself why he had suddenly stopped taking part in the work he had begun. There were always plenty of unfinished projects in the lab, and the starship crash and the subsequent events had pushed aside the old projects but had not cancelled them. Roy was even delighted that Henry wanted to get away from the urgent problems and resume work on the planned ones. He said that Henry had not fully recovered, since his morbid dreams did not point to robustness of health. If anything interesting came up, he and Armand would let him know.

Henry visited Araki's clinic three times a week. Andrei was still in the same condition, neither good nor bad. Sometimes he was fully conscious, and they would chat about the civilisation on Centaurus and about the news on Earth. Andrei frequently lost consciousness, and then Henry sat quietly at his bedside and studied him. Andrei had changed, and the changes were accumulating. He had put on weight. The gaunt face had filled out and the sharply prominent cheekbones had become less so. Andrei now spoke more calmly. Only the eyes were huge, as before. They still had their old sparkle, but before

his illness, their calm, intelligent, quickly changing expressions had matched the mobility of the features, whereas on the now sleepy face they looked as if they belonged to someone else.

Once, Andrei woke up suddenly and saw Henry studying him. Henry was embarrassed, as if he had been caught doing something wrong.

"What are you looking for?" asked Andrei sharply.

"I'm trying to tell if your illness will pass off soon," joked Henry.

"No," declared Andrei in his usual categorical manner. "You want to know if I'm soon going to change into Harrison. You needn't try to deceive me, I understand fully, Henry."

Andrei's eyes were shining so brightly that Henry could not look straight at him.

"I have already told you our conclusions. Interference in the genetic program occurred at the embryo stage, but you're a grown man after all..."

"Nonsense," interrupted Andrei impatiently. "An embryo is only one of the possibilities, don't think that the Centaurians, if it's them, and there's no doubt of that, are bigger fools than we are," he said, piling one sentence on top of another. "Emissaries, as living instruments of communication, must always exist, and it's impossible for the death of one not to evoke the immediate rise of another; and there might well be a

lot of them, two are already known, while the rest aren't, correct?"

Henry finally interrupted Andrei's torrent of words.

"Roy and Armand are trying to detect suspicious brain emission. The most up-to-date apparatus is being used for the search. There have been no results so far. No new Spensers or Harrisons have been found."

Andrei was silent for a while.

"Listen," he said at length and again fixed his glittering eyes on Henry. "If that is to be my fate, then it threatens you too; you've been thinking about this, only don't dodge the issue, talk straight!"

"I haven't been thinking about it," admitted Henry. Indeed, no such wild idea had ever entered his head.

"Then think now!" ordered Andrei. He sank back into his pillow and closed his eyes. He looked like himself, and yet in a way he didn't. Henry waited a moment for Andrei to have a rest and was about to say something when Andrei turned over abruptly and repeated with irritation, "Think! About me, and about yourself, the very worst is possible, think hard, without fear, we've got to know!"

"I shall think," said Henry gently. "And even if not about you and me, I think about the same thing every day and every hour."

"Explain, then. You and Roy were always so high-flown and long-winded..."

"I'm thinking about Harrison. His suicide is a mystery to me. You knew him

better than anyone else. Couldn't you give me some kind of a lead?"

Andrei nodded his head with satisfaction, as if Harrison's suicide was precisely what should have been troubling his friend more than anything else.

"I also think about it every day and every hour, with the same conclusion—a remarkably obscure puzzle, and there are exactly ten possible solutions. I will begin with the trivial ones: a woman, an unhappy love-affair—not applicable..."

"Armand made a check: Harrison had no close woman friends," interposed Henry.

"Exactly so, don't interrupt. He was a good-looking lad, young, the girls in the lab gave him the eye, but no, Harrison wasn't tempted. The second possibility would be failures in his work, rows with the boss, but I was the boss, so that's rubbish; everything was fine and dandy, radiant prospects, so that's not applicable either. Third—secret ailments, hereditary disease, fatal secrets in the past, that's all such rubbish that it's not worth going into any further, so that's not applicable. Fourth, he came to realise that he was an emissary from other worlds, was horrified, panicked and gave up—applicable. The fifth is a variation of the fourth: he realised that he was capable of causing disaster, was horrified, and gave up—applicable. Sixth, a variation on the fourth: I was always with him, he had an influence on me, saw that he was dragging me over the brink, didn't want this, was horrified... Any more needed?"

"That's enough, I should think."

"Then you can go, I'm tired," ordered Andrei. "And think!"

He turned his face to the wall. Henry left quietly. As he went out, he threw a cautious glance back at his friend. He must now mind the expression in his own eyes so that Andrei wouldn't read in them something about which Henry himself had not guessed. This was also a new feature: Andrei had formerly been too preoccupied with other matters, to go out of his way to try and understand the moods of his friends.

Henry headed for Araki's place. The medical superintendent was studying the image of a complicated chemical structure on the display. Without taking his eyes off the screen, he silently motioned Henry to a seat. Henry waited and looked round. If the two brothers' lab was crammed with apparatus of the most varied design, Araki's was dominated by screens: big, small, rectangular, oval, round, dark, semi-opaque, coloured and monochrome. There were several instruments standing on Araki's work-bench, each with a screen of its own. Araki finally tore himself away from the screen.

"Are you interested in Andrei Korytin, friend Henry? He's better. We'll discharge him in a month if there aren't any complications."

"I wanted to talk about myself."

"Have you noticed something new about yourself we don't know?"

"Only one thing: I'm being bothered by

strange dreams. They're strange because they repeat themselves exactly, down to the last detail."

Araki found nothing unusual about the dreams; they were ordinary fantasies. The amazing, the unearthly, the unusual were typical of dreams. A dream was strange if there was nothing strange about it. Very realistic dreams, on the other hand, indicated a disturbed psyche rather than a normal one.

"Don't worry, no serious departures from the normal yet," said Araki as a final comment.

Henry went back to the lab. Roy had been sent for by Boyachek and Armand was tinkering with the apparatus. Henry sat down on the couch and started thinking.

Armand was muttering something angrily to himself.

"Listen, Armand, you and Roy are experts on antiquity," said Henry. "Especially you. What was the attitude to dreams in ancient times? Were they just looked on as amusing entertainment, as they were by the fans of Jackson and Artemyev?"

"Certainly not!" exclaimed Armand. He sat down beside Henry. "Fresh news about Artemyev? I thought we had sorted him out completely."

"No! It's just that I'm being bothered by bad dreams," sighed Henry.

"The good god Balder, son of Odin, father of the gods, and Frigg, their mother, began having bad dreams!" chanted Armand. "And

the great Frigg, alarmed, went about the Earth to ask all the things in the world not to harm her radiant son. And all the stones, metals, plants, water, animals, birds and fishes willingly promised not to harm Balder. From the mistletoe alone did Frigg forget to extract a promise, since it was too ugly a sight to see. The evil spirit Loki learned about this. And a branch of mistletoe, released at the cunning Loki's instigation by the hand of Balder's brother blind Hedd, pierced the sun-bearing god to the heart. That's what they sang in the old Scandinavian sagas."

"Not bad dreams," said Henry. "Senseless ones. I can't make out what sort of rubbish is getting into my brain and why..."

Armand skipped from ancient lore to contemporary science in a flash.

"Excellent!" he exclaimed like a man inspired. "What I mean to say is that you have given us an interesting mathematical poser—the modelling of dreams. It seems to me I've been thinking on and off about such a thing for a long time, but I couldn't put my finger on it. Medical people and creative artists have been working on it with us, but this business should be handed over to the physicists. So we'll feed all your brain data with the plots of your dreams into our institute SUM, and it will find out whether the images could occur of their own accord in your brain, arising solely from the information in the cells, or whether they've been induced from outside. You have no objec-

tions to such an experiment, have you?"
"None," said Henry.

## 2

Whenever Henry succumbed to apathy, he lay at home on the couch and stared aimlessly at the ceiling, and at such times it was better not to disturb him. Roy had learned unerringly to spot the approach of these attacks of causeless indifference. He usually left Henry in peace, patiently waiting until the apathy passed. He would look into Henry's room and, if he saw that his brother was "having one of his spells", calmly said something like, "A good weather chart for today" or, "I'm going for a walk after work", and went out.

Roy didn't look in that day. Henry woke, got up, was about to get dressed but changed his mind and lay down again. The room was rather dark; he must switch on the ceiling and the inner walls. With a push of the button, Henry made the outer wall transparent so that it was now just one big window. It hardly became any lighter; only shaggy, scudding clouds could be seen through the cold transparency of the wall. With a second push of the button, Henry opened the wall. A cold wind and noise burst in and autumn invaded the warm room. Henry went out on to the balcony.

The boulevard, as always, was deserted, and, as always, there were many aircabs and

airbuses racing across the sky. Henry closed his eyes and took a deep breath of air. The passing air traffic was soundless; the noise was coming from below—the wind was buffeting the gardens on the boulevard and the trees were soughing and swaying as if alive. They're not as if alive, they *are* alive, thought Henry, correcting himself; their life is different from that of human beings, but it's life! He remembered that he had long wanted to tune a deciphering machine to the voices of the grass and the leaves in search of meaning, but something had always made him put it off.

He lay down on the bed and switched on the infra-red radiation of the inner walls. The cold was bursting in from outside, but it was kept at bay by the warmth streaming from the walls, so that it blew cold and hot by turns. One moment Henry was shivering, the next he was beautifully warm again: there was confusion in the air, as in his soul. Everything was muddled, nothing was certain. And although even he had realised what must be done, he had not found the spiritual strength to carry out his plan.

Cringing in a gust of cold air, he returned in thought to what he had been reflecting on the day before, to what Roy, during the argument with Araki, had called a baffling question but had not wanted to discuss—the answer to all their riddles lay hidden there. In fact, the question was simple and the answer was even simpler. And Henry soundlessly, without moving his lips, kept repeating

that question: "Why did the civilisation on Centaurus-3 find it necessary to announce itself to the whole Universe and send its emissaries everywhere?"—and the amazingly clear, almost astoundingly convincing reply: "They wanted to."

"They wanted to, they just wanted to!" said Henry aloud.

He closed his eyes. His thought flew faster than the mysterious faster-than-light signals agent of the Centaurians. Henry sped through a pretty star cluster, the sky was around him, over his head and under his feet, its eyes glittering in their thousands. It was not a landscape, it was a living thing. Henry did not admire the sky, he felt miserable. He imagined himself as a Centaurian. And he felt weighed down in that most beautiful part of the Universe, he and all his brothers, the Centaurians. Everything here, comprehended and subdued, was his; he could change the radiance of the stars, move them about and scatter them,—the might that was so enormous was now becoming immeasurable! But there were no neighbours, there was no kindred rational being, a friend with whom it would be possible to communicate via the radiance of the stars. Without even being conscious of it, the stars are in communion with one another. He had no friends. He was alone. He craved contact: to hear of other rational beings, to talk about himself, to find out about them, to help those in need of help! The Universe was too great. It was terrifying, it was a bitter experience to feel

oneself a solitary rational being in such an enormous Universe.

"Of course, of course!" muttered Henry. "The craving for communion! At a certain stage of development, it became more urgent than the craving to exist which was more primitive. This was the source of the good *being distributed by them, this was the root* of the unintentionally committed evil. It all fits! It all fits!"

Henry jumped to his feet. The time for *reflection was over. He must act. He went* to the desk, pulled the dictaphone towards him, made sure that there was a tape in it and said quietly:

"Roy, forgive me, it will be dangerous to prolong it. Don't be angry. Better Harrison's fate than Spenser's."

He put the dictaphone down in a conspicuous spot. His brother would arrive in the evening and, not seeing Henry there, would switch on the recording. Now he must make haste. Roy might even arrive before evening, and he would try to interfere.

Henry went out on to the balcony again and called an aircab. It was a long time since he had *sped with such haste over the streets of the* Capital. Only after he had flown over Ring Park did he slow down. A single-storey building appeared among the trees. Henry touched *down at the entrance and hurried into the* lobby. The rather dry voice of the first watchman (all the automatons here had been programmed with a warningly strict tone of voice) inquired what the visitor wanted.

"Extreme urgency," said Henry and he dropped a token into the slot.

Henry knew that the tokens must work. Roy had used his own search token several times and there had not been any rejects. But Henry, who had not yet resorted to the authorising power of the token, suddenly caught his breath in excitement. The token returned a moment later and the first door opened. Henry hurried along the empty, brightly lit tunnel, which ended in a semi-circular hall. In the middle of the hall, a towering cylindrical second watchman projected from the wall, with panels on either side of him like wings. There was a succession of doors built into each of the panels.

"Yes?" said the second watchman. His voice, slow and sombre, seemed to come from all directions at once.

"Force screen store, extreme urgency," said Henry, and he inserted his token.

The end door in the right-hand panel opened. Henry hurried through it. He only had a few paces to go. The next watchman repeated the question. Henry answered with the same words about extreme urgency and inserted a token. There were no doors in this section and the watchman was in the form of a massive pillar in the middle of the room.

The token did not come back.

"Specify screen type."

"Last model from Academician Thomson's lab," said Henry. "I mean the protective clothing creating gravitational, optical and electromagnetic invisibility, and also..."

"Higher Immunity type N-5," interrupted the watchman. "I am sorry, friend. Extreme urgency is not enough."

"What d'you mean, not enough? I don't understand you. Extreme urgency has always conferred the right to carry out a search in any clothing that creates invisibility."

The reply followed immediately.

"Only not in that suit. A special category, K-12, has been created for model N-5. Your token is for the old model; it gives no right to gravitational invisibility, only to electromagnetic. Very sorry, friend."

Henry looked in despair at the plastic pillar that spoke with the voice of a man. He had known there might be obstacles to obtaining a suit, but had merely feared that he wouldn't be allowed as far as these difficult-of-access stores. And he had thought of a way out for such an eventuality. He and Roy had already looked over various models of screening suits; permission to inspect and try them on was tantamount to permission to use them. But, apparently, the memory of the electronic watchmen retained a permit once it had been received. He had never tried out suits with gravitational screens and had never asked for permission to use them. Yet they were the only ones he needed; the others could not protect him from the search that would soon be undertaken by Roy.

"Very sorry, friend!" repeated the watchman inexorably.

He must either leave or ask for a different suit. Henry swallowed the lump that had

risen in his dry throat and shouted:

"One moment! Can I find out what speciality K-12 means?"

"Your token entitles you to obtain a reply to that question," said the watchman. "Speciality K-12 means that only twelve persons can be allowed to use suits of the higher category of immunity."

"Have you a list of the persons authorised?"

"No, friend. The list is confirmed daily in the memory of the Repository in the Directorate of State Machines. I am under obligation to ask the Repository who is authorised to draw such suits and at what time today."

"Ask it, then. My name may be there," said Henry quickly.

The watchman was silent for a moment, then solemnly announced:

"Perfectly correct, friend Henry. You are in speciality K-12 under Number Eleven. Please enter."

The watchman divided into two halves, each moved towards the wall and a passage opened up between the halves. The next room was a series of niches in each of which hung a screening suit. The watchman boomed that Henry must go to niche number three and take suit number eight, since number eight would be the best fit for him. Henry reached out and stroked the massive box that looked more like an upended sarcophagus than a suit. It was the last great creation of Ivan Thomson: he had invented this model

only two months before his tragic death. Henry sadly thought that Thomson himself had probably put him and Roy down on the list of those allowed to use his invention. "My latest work is going to come in very handy for you and Roy when you're investigating disasters on other planets," Thomson had said to their great delight at the time. He had not even suspected that the disasters would take place on Earth, that he himself would be killed in one of them, and that the most perfect suit for a search would be used by its inventor's friend to protect himself from a search.

"Travel is accomplished by an internal motor," boomed the watchman. "Push-button switching ensures transparency in the optic, thermal, magnetic, electrostatic, gravitational and all gamma and radio frequencies. Enter and shut yourself in. I will send it outside with my own force-fields. Have a good search, friend Henry."

Henry got into the box and it came to life. It started moving and changed from rigid to flexible. It was not an unwieldy, massive sarcophagus any more, but a real suit that made him feel lighter and was heat-retaining as well. Henry stretched out his arms; the wall of the suit moved freely outwards to form sleeves but did not let his fingers come through. The watchman advised him to use the suit as a cocoon, making sure that he could move freely inside it, otherwise he would feel as if his body was enclosed in a mass of dough.

"Send me for a start to the Second Ring Boulevard, to the fifteenth sector," replied Henry to the watchman's question where he should be transported before the latter switched on his own motors and protective screens.

This was a side avenue, an isolated spot shut in by tall Lombardy poplars. The avenue led to a glade fringed by dense rose bushes. In the middle stood a fountain but it was not working that day because of the overcast weather. Park benches had been ranged round the fountain and branches of the bushes overhung their backs. Henry loved the capital's boulevards, but he used to come here to the fifteenth sector in spring and summer more often than to anywhere else. Sitting under the overhanging, brightly coloured, gently fragrant roses, in front of the intricate criss-crossing of the fountain jets, he could relax properly and reflect.

The weather program for the day indicated rain after noon. It was approaching midday and the clouds were gathering already. The wind stirred the branches of the young trees. Leaves danced in mid-air. Henry switched on the buttons of the electromagnetic screens. He was now immune to the eye and to instruments using all kinds of electromagnetic radiation. He was still in this world, yet he was already outside it. He hesitated a moment, then switched off the screens. It was too early to dissappear entirely. He could still stay awhile in his personal existence. He had about two hours. He wasn't going to hurry. He hadn't thought everything out

yet, taken final decisions, overcome his last doubts... "No, I've thought it all out," said Henry ruthlessly to himself. "It's all settled."

He had no more doubts. The guesswork had stopped the day before, at the moment when, in a sudden flash of illumination, he had hit on the cause of Harrison's death. He had thought about it so hard and so persistently, he had tried to foresee what significance it had for everybody, especially himself. He had sought the answer to his own fate in the solution—he had found it and had been appalled. He had spent a troubled night arguing with himself, opposing himself and feeling sorry for himself. The night was over and with it, his doubts. Everything was now clear. A sombre clarity! Clarity or self-deception?

"There was no self-deception," objected Henry to himself. "There was understanding. A mighty civilisation was creating its own living sensors of communication everywhere, through which it was obtaining necessary information and gradually transmitting its own knowledge and skills. But it failed to account for one thing: the possibility of its own destruction. Of course, Boyachek is right, it meant no evil to anyone; the striving for contact, for communion across the Universe was unselfish—the evil that occurred was unforeseen. A catastrophe took place in a distant star cluster, and all the messengers of the dying civilisation were changed from ambassadors of good into agents of evil. Spenser didn't understand what was

happening, his brain burned out instantly; but Harrison imagined in his despair that he could become as fatally terrifying to human beings as Spenser had been. And he left this life, first transferring to my brain important mathematical truths and sending information about Ollie through Artemyev. Because of the crash on Mars, I became Spenser's heir. Andrei was probably being prepared for this too, but it didn't get as far with Andrei as it did with me. I am now their representative on Earth, the channel through which the poison can be poured. But I don't want to be a source of evil, I don't, I don't. No," said Henry to himself, struck by a new thought, "no, everything is different from what I've imagined. No, how could I dare to think that out there, unimaginably far away, the one thing they didn't foresee, understand, or allow for was the possibility of their own destruction. They took everything into consideration, they protected themselves against everything. That's it, their protection—my sudden insight! Yes, that's it! It can't be otherwise! Living communication sensors carry out their functions unconsciously, it's their second life, secret and unsuspected. And at the moment of danger they either perish, like Spenser, or understanding dawns on them, as on Harrison. And Harrison departs this life of his own accord. Safety is here, in an instantly awakening consciousness of oneself as dangerous. They have confidence in the ones they chose! What respect they show in letting the doomed

victim be illuminated by an understanding of his fate!"

Henry switched on the walking motor. It became easy to move about in the suit. Henry walked along the avenue, stood before a Lombardy poplar and stared upwards. The clouds were scudding along faster, were coming lower, were darkening. Henry was flooded with a still unfamiliar, keen pain, as if of the heart, a surge of love for the Universe, for everything in it, for movement and sound. He had once lived in the world, the world had only been his environment, but now he had become involved in every part of it, and his sense of blood kinship with it filled him with joyful pain.

He went up to a rose-bush. Until recently, this had been a mass of blooms, but now it was reaching out its bare branches, swaying in the wind. Henry plunged his hand into it, moving it about in the clump of slippery, thorny fronds and said tenderly, "Don't be afraid, I shan't do you any harm!" With plastic-sheathed fingers he stroked the trunk of a swaying poplar, and told it too, "Don't be afraid!" Then he sat on the granite barrier and promised the empty, dully glittering pink marble fountain that it, too, would come to no harm. Three boulders loomed up nearby: grey granite in the middle from Scandinavia, basalt on the right from the Moon, and, on the left, red vulcanite from Mars. Formerly, Henry had never given them more than a cursory glance; he was not interested in rocks, terrestrial or otherwise. This time,

however, he went up to them and studied them closely. He sensed fear in their sombreness, a motionless arrogance masked the timidity of their bodies. He stroked the rocks of Earth, Moon and Mars in turn and whispered to them with emotion: "I'm yours, I shan't betray you."

The rain lashed down, frenzied, powerful, loud-voiced. And at once the wind died down, the trees no longer tossed in fright and the bushes and grasses stopped writhing; all voices were silent and motion had ceased. All sounds now gave way to the falling rain and it was the only thing moving in the world around. Henry bared his face to the cold downpour and a new sensation, a new understanding, suddenly dawned upon him.

He felt himself to be part of everything that existed on Earth: of the rain and of the tree nearby, of the clouds above him and the water under his feet. All former insights into the truth sank and were dissolved in this sensation. Slowly Henry returned to the bench. Time had run out, time had ceased to exist. He must carry out his plan of action.

Henry swallowed the pills prepared the day before, and pressed the buttons to switch on the electromagnetic and gravitational screens.

## 3

"Only you can do it," said Boyachek with feeling. "Model N-5 came from your lab."

"Only you, Robert!" echoed Roy.

Robert Arutyunian, who had been in charge of the Non-Stationary Fields Lab since the death of Academician Ivan Thomson, stared gloomily down at the floor. The screening suit of higher immunity had been built during Thomson's lifetime. His colleagues had been working at the time on the problem of ensuring maximum protection from external influences, the direct opposite of the task they were now faced with. The extremely difficult problem with which they had grappled then had been solved brilliantly. There were no means of affecting the screened person, he was completely isolated from the outer world.

"But how did he manage to get hold of that suit?" muttered Arutyunian distractedly. "As far as I know..."

"You're right, permission to use such a suit is hardly ever granted," interrupted Boyachek. "But Henry had permission. I personally put him down on the list. I didn't put myself down, but I entered his name. You're on that list too, friend Robert."

"Are you sure he's alive?" Arutyunian asked Roy after a silence.

"I am," said Roy quickly. "If he had wanted instant death, he would have sent a discharge through his brain. He took some pills that retarded the life processes. He's dying, but he's still alive and will be for some time—twenty-four hours, in any case."

"Are you sure he hasn't fled Earth for other planets?" asked Arutyunian.

"Out of the question," said Boyachek.

"I've sent a warning to all spaceports, astroports and airports."

"No one will know if he boards a passenger craft," commented Arutyunian.

"We've allowed for that. All flights are temporarily cancelled. Earth and interplanetary machines have been grounded. Henry can only move about with the aid of his own motors or in an aircab. The aircab will appear to be empty."

"An empty aircab is easily intercepted," agreed Arutyunian.

"He's not moving anywhere," Roy said firmly. "He's lying low somewhere in a hidden spot and he's slowly sinking into oblivion. I tell you, he didn't take those pills with him just to have them in his pocket! I know Henry!"

Arutyunian ran his eyes round the apparatus-filled room and said hesitantly:

"There aren't any reliable methods of picking up a screened person. After all, we did everything to make sure that such a thing couldn't happen. If only we could work out a new method..."

"What method? How long will it take?" asked Roy impatiently.

"Not long, just a few hours... But the search will be a success only if Henry is on Earth and not in space. Don't forget that any activity inside the costume is guaranteed irrespective of the conditions outside. If no dangerous pills have been taken, of course. The fact is that the screened person is immune to any outside effects, but he's still a material

body displacing air. He can be located by a hole in the atmosphere, an air pocket. It won't be difficult to run up some search-analysers and hand-seekers to detect local air pockets. But is it possible to search the whole surface of the Earth in a short space of time, looking for tiny holes in the atmosphere?"

"We have no option, so we're going to have to do just that. Armand is at your disposal, Robert," said Roy. "I'll be giving a hand as well."

"Let's hope that Henry has stayed in the Capital," sighed Boyachek.

"He's in the Capital or not far from it," repeated Roy glumly.

Arutyunian took Armand by the arm and went off with him.

"I'm surprised at you, Roy," said Boyachek. "Surely you realised what a state Henry was in? You should have given him a little more attention and not left him alone..."

"I was afraid to be with him," replied Roy sadly. "Ever since Araki and I decided to check in case something had been passed on to Andrei and Henry from those two... We wanted to keep it secret from both Andrei and Henry to avoid upsetting them. Henry met me often and might well have guessed that some comprehensive research was under way."

"He guessed anyway, though you tried to be with him as little as possible."

"He arrived at that idea himself. He didn't know about our check. Actually, it was And-

rei who became uneasy himself and suggested it to Henry."

"Are you sure of this?"

"Yes. Henry finally became convinced that he was infected by Spenser's brain signals after he started having bad dreams. I knew all this. Except that I didn't expect Henry to act so fast. And I hoped he would mention his fears to me, and I would have had an answer by then. Before, he used to consult me..."

"Before, no such difficult situation ever arose." Boyachek sighed again. "All the Capital's power stations will be working for you, Roy. If there aren't enough reserves, we shall stop the automated factories for a time."

Roy silently bowed his head in acknowledgement.

Arutyunian was working out what machines would be required and was giving instructions for them to be switched on, while Armand coordinated with the power centre on channelling the energy. Roy called an aircab.

"If I'm needed, I'll be at Araki's," he told Armand.

"Yesterday, I sent Araki my scheme for modelling dreams," said Armand. "He's probably carried out his first experiments with it."

Araki already knew what Henry had done. Roy asked him how many hours they had, assuming that Henry had taken the pills immediately after drawing the screening suit. Araki replied that death would not occur

in less than twenty-four hours. Roy glumly commented that twenty-four hours was not long enough for a successful search after all, they were going to have to comb every inch of space in the Capital, and possibly outside the city limits too. Araki objected that Roy had put the question incorrectly and had therefore received an unreassuring answer. What really mattered wasn't the moment when death occurred, but the moment when the return to life became impossible: those two moments differed considerably. The fact was that the pills retarded not only the processes of life, but the reverse processes of death.

"Find your brother in seventy-two hours and I'll bring him back to life. I'll prepare the necessary drugs today. Call me immediately you find him."

"How's Andrei? How's the verification of Henry's dreams?" asked Roy. "How's it going with that..." he stumbled for a moment— "that Spenserisation of them both?.."

Araki replied that Andrei was in the same condition of slow recovery. He knew nothing about Henry's behaviour. Experimental modelling of the dreams by Armand's method had shown that there was nothing supernatural in Henry's dreams: not one of them contained data that had not already been stored in Henry's memory.

The dreams had certainly not been induced by unknown and unidentified signals, but were the usual fantastic combination of entirely realistic details.

"As for what you call Spenserisation, Roy," said Araki with an eloquent shrug of the shoulders, "I can assure you there's none of that. Andrei and Henry are both normal people. If yesterday I only believed that, today I know it."

Arutyunian was sitting at the console in the lab. Roy had often seen him before at this command post when Thomson was studying the properties of non-stationary fields. He was running his fingers over the white, red, and black buttons, giving commands to the automats, receiving signals from invisible mechanical and living assistants. From end to end on the wall in front of him glowed a map of the Capital with red search indicator lights flashing on it here and there. Armand was sitting to one side, his eyes running over the twinkling map. On the floor lay two instruments resembling ancient pneumatic drills. Roy squatted down next to Armand.

"Hand-seekers," explained Armand with a glance at the instruments.

Arutyunian switched the search over to automatic control and went up to Roy.

"Supposing we find Henry," he said. "How are we going to free him if he's unconscious, or if he's conscious and doesn't want to be freed?"

"You designed the suit, Robert," said Roy. "You created immunity for whoever uses your screens. Surely you have the means of cancelling it? Or am I wrong?"

Arutyunian hesitated.

"Safe means don't exist, Roy."

Roy looked for a long time at Arutyunian's calm, almost impassive face. He and Armand were similar in appearance: the same dark complexion, the same black eyes and black hair, except that Arutyunian's hair was much more curly, and the same low stature. But it was doubtful whether there were two people less alike among Roy's friends. Armand was hot-tempered and would blaze up at mere trifles. Arutyunian would have retained his imperturbability even in a raging fire.

"You explained that it would be difficult to find a screened person!" exclaimed Armand. "You said nothing about the danger of opening up the suit, Robert."

"First find, then open... Opening is the second problem."

"Is it even more difficult?" asked Roy.

"More dangerous. There's a roton key, Roy, a roton generator that cancels the screening fields."

"D'you know how to use a roton generator?"

"I do."

"Then what's the problem? Start up the generator when we find Henry."

"I won't. It's dangerous."

Armand wanted to intervene, but Roy stopped him with a glance. Arutyunian explained that the action of the rotons on a force screen was a violent one. The slightest inaccuracy in handling the generator could result in the death of the screened person. Arutyunian hadn't enough confidence in his own nerves to operate the generator.

Roy grinned.

"I understand you. I have strong nerves. And my brother will die if I don't go to his aid. Where is the roton generator?"

"Let's go, I'll give you one and teach you how to use it."

The roton generator looked like a dagger in a sheath. Roy fastened it to his belt and went back to the map of the Capital. Arutyunian took his place at the console. Armand said with annoyance that nearly the whole of the Capital had been checked, but Henry had not been found.

Roy looked thoughtfully at the map. The search was methodical, but dry. It had system but no insight. Just a job to be done, without inspiration...

"Robert, Henry had favourite places for a stroll," said Roy. "Especially the eastern sectors of the Second Ring Boulevard. Supposing we concentrate on them?"

Arutyunian nodded silently and transferred the search to the boulevards, leaving vast uncombed districts with the ones already checked.

He soon said that a small gravity hole had been found in the fifteenth sector. Total optical transparency, and the same for thermal, magnetic and electrical pulses, but an unmistakable vacuum is land in the atmosphere.

"Don't celebrate too soon," he said, stopping Armand who had snatched up a seeker. "I've hit on such holes dozens of times and they turned out to be balloons or mechanisms

with a highly absorbent black surface and rarefied gas inside."

A moment later, he announced that a material object was moving slowly across one of the glades on the boulevard; it was not giving off any heat rays, was transparent to particles and waves, but undoubtedly formed a small air pocket the size of a man in an immunity suit.

"It looks as though it's him," said Arutyunian. "Put on ordinary screening suits. I shall be covering for you at long distance. I'm transferring all mechanisms to instrumental search. If he makes an attempt to vanish, he won't succeed."

Armand nimbly got into his protective costume, picked up the seeker and hurried outside, where an aircab was waiting. Roy sent out a call for Araki and hurried after Armand. The rain, which had begun exactly on schedule, was lashing down in buckets. As he got into the aircab, Armand advised Roy to send a request to the meteorological centre for the clouds to be driven away from the city. Roy shook his head: let the rain pour down, if it had been so planned. Armand disappeared into a grey pall of rain. Roy followed him at the double, unable to see him. Armand's aircab landed on a small round pad ringed with tall Lombardy poplars and Roy's aircab touched down beside him. Roy looked round. He knew the place well. Rose Glade, as he and Henry called it; they often relaxed here. Armand shouted, running the seeker along the bare, leafless bushes.

"Here he is!" He dashed to a bench on the other side of the fountain.

The bench was vacant; the rain was pouring down onto it, there was a puddle of water visible in the hollow of the seat and bubbles were seething on its surface. The seeker showed that there was an invisible material mass in the empty space. Arutyunian gave a warning over the thought-line that Armand and Roy had reached their target and they must be careful; they could not see Henry, but he could see them. If he dived to one side, there could be a violent collision.

"What perfect screening! A genuine ghost!" said Armand, turning pale. "Roy, he's not moving. He's lost consciousness, Roy!"

Roy signalled to Armand to stay where he was and himself drew cautiously nearer. For about two minutes, he stared in silence at the trickles running down the back of the bench and at the bubbling water on the seat. Henry was there, yet he wasn't there. His suit would have to be cut open by guesswork. Roy looked round at Armand. An aircab landed nearby and Araki alighted. Roy signalled to him that he should keep his distance too.

"I'm moving all the protective fields towards you," said Arutyunian's calm voice to Roy. "But be careful, Roy, be extremely careful!"

Roy took another pace forward. He ran the seeker along the bench, peering at the outlines that it traced in the empty air. Never had he strained his eyes so much before. And

although both to Armand and Araki, as they watched him, the bench was still vacant, Roy could see more and more distinctly a bowed figure that had lost its human outlines, an elaborate cocoon with a man coffined inside it. With each fresh movement of the seeker, the invisible figure became more distinct and imprinted itself more sharply on the mind. It was still invisible, but Roy could see it. He had to see it, in full detail, otherwise he could blunder. A blunder would be irrevocable.

When he unsheathed the roton generator, he aimed it at the emptiness where with great distinctness he imagined the shapeless figure to be. He knew that there could be no mistake and that the dagger—a sharp roton stream—must hit the exact part of the screening suit that, as Arutyunian had explained, was the lock.

Roy was propelled towards the fountain by a powerful wave. The bench, its six legs firmly embedded in the ground, shot upwards and began to disintegrate in mid-air, as if being torn apart by giant hands. Roy clutched hold of the barrier with his free hand and shouted into the transmitter for Arutyunian to shift the external force-fields a little further. Armand, rushing up to help Roy, was caught in the invisibly lashing forces and, with a shrill cry of pain, fell to the ground.

The battle of colliding forces moved from the glade into the avenue, bushes were torn up by the roots and whirled into the air, a century-old poplar began to fall and after

it another. The rain, lashing the ground with its former intensity, suddenly slanted sideways, the force-fields were thrusting it to one side and flinging it upwards. An amazing hurricane raged in the park, silent and frenzied—a tempest of duelling forces. Armand jumped up and tried to rush into the heart of them, but Roy detained him.

"Our protection could pack up. Robert'll manage now, without us."

The silent hurricane, that had just been toppling trees, began to change into an ordinary wind. The crowns of the poplars tossed, the branches whistled, the gravel rattled as it was set in motion. Then everything went quiet, and only the rain poured down monotonously. On the path, at the exit to the alley, the outline of a man slowly appeared, then progressed from outline to shadow and from shadow to human form. All three promptly dashed towards it.

Henry was terribly pale and still. Roy half-lifted him up and Armand hurriedly bared his chest. Araki applied the nozzle of an injection apparatus to his skin. All three were silent for a minute or two, waiting for the drug to take action. The colour gradually returned to Henry's cheeks. He sighed, slowly opened his eyes and looked in turn at Araki, Armand and Roy.

"You found me?" he whispered in astonishment. "Did the screening break down?"

"It didn't break down, it was overcome," replied Roy. "Now we're going to fly home, Henry."

Henry pushed his colleagues' hands aside and sat up.

"Roy," he said, "you've never lied to me. Who am I?"

"The person you always were," replied Roy. "Perhaps a bit stupefied by your dream visitations. I'm telling the truth, Henry. Everything's fine!"

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ISBN 5-05-002490-0